Changes in Work-Life Balance over Time: Implications for Job and Family Satisfaction

Rosie Sara Shiels

BPsy (Hons)

School of Applied Psychology
Griffith Health
Griffith University

Submitted in fulfilment of the requirements of the degree of Doctor of Philosophy

May 2014
Abstract

Work-life balance research has generated substantial interest for researchers and applied business professionals over the past two decades. Work-life balance can no longer be considered a personal choice for individuals; it is also a human resource management tool used to attract, motivate, and retain highly skilled employees. Most research investigating work-life balance has tended to focus on the negative aspects of combining work and non-work domains, rather than focusing on how work and non-work roles can be mutually beneficial. This research shifts the focus from the scarcity perspective (that balancing multiple roles inevitably leads to inter-role conflict as demands for time and energy compete for limited resources) to the enhancement perspective, which suggests that engaging in multiple roles can be energising, provide more opportunities to the individual, and increase well-being.

The overall aims of this research were (a) to validate a recently developed scale of perceived work-life balance, (b) to test a model of work-life balance, which identifies the processes by which work and non-work domains predict job and family satisfaction, whilst controlling for work-life balance, and (c) to assess a longitudinal model to identify factors that contribute to the experiences of job and family satisfaction. Three studies were used to meet these goals.

Study 1 addressed the lack of empirical evidence in the measurement of work-life balance by validating a new measure of work-life balance which is distinct from work-life conflict and work-life enrichment. The sample consisted of 665 teachers who completed a survey. Using confirmatory factor analysis, a one factor Balance Scale (4-items) was found to be a good fit to the data, and was quantitatively distinct from work-family conflict and work-family enrichment. All factors tested loaded onto a latent work-life balance variable, which included work-family conflict, family-
work conflict, work-family enrichment, family-work enrichment, and the new balance variable

Study 2 tested the cross-sectional associations of antecedents (e.g., work and family demands, organisational time expectations, supervisor and family support, and supportive organisational culture) and consequences (job and family satisfaction) of work-life balance (using the work-life balance components identified in Study 1). Three alternative models of work-life balance were tested via structural equation modelling, including Frone’s (2003) four-fold taxonomy of work-life balance. An alternative model, which consisted of Frone’s four components plus the Balance Scale, was found to explain the relationships between the antecedent and outcome variables more fully.

The results indicated that (a) family demands were positively related to family-work conflict, whereas work demands were associated with both directions of conflict, (b) work and family demands were not associated with enrichment, (c) the hypothesis that resource variables from both work and family domains would be positively associated with enrichment and balance variables and negatively associated with conflict variables was largely supported, and (d) the positive aspects of work-life balance (i.e., enrichment) contributed the largest amount of variance to both job and family satisfaction when compared to the negative (i.e., conflict). When the components of work-life balance were tested as mediators between antecedents and outcome variables, it was found that (a) a supportive work-life culture and supervisor support were associated with greater job satisfaction via increased work-family enrichment and decreased work-family conflict, (b) a supportive family was associated with greater family satisfaction via increased family-work enrichment and decreased family-work conflict.
Study 3 extended the findings of Study 2 by using a longitudinal design to test the stability of the measures over time (1-year time lag) and compare alternate causal relationships (i.e., normal causality, reverse causality, and reciprocal causality). The sample consisted of 229 respondents who completed T1 and T2 surveys. The results of cross-lagged analyses indicated that the reciprocal causality model had the best fit to the data. The findings suggested that family support at T1 predicted greater family satisfaction at T2, family satisfaction at T1 predicted family-work enrichment at T2, job satisfaction at T1 predicted future work-family enrichment and family-work enrichment at T2, after temporal effects were controlled for.

Theoretical and practical implications from the results of this research are discussed. Practical implications focus on (a) that multiple roles can be beneficial and not just conflictual, (b) that a social exchange occurs when employees perceive that their organisation supports their non-work needs, and (c) that family support and satisfaction are instrumental and play a crucial role (positive and/or negative) in the employees’ experience in the workplace. Organisational interventions that increase enrichment and decrease conflict are discussed, as well as the need to shift the paradigm of the ideal worker from one who spends long hours in the workplace regardless of family commitments to the “ideal” worker who integrates work with family care and is able to meet productivity and caring needs.
Statement of Originality

This work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

Signed……………………………………………………………

Date……………………………………………………………
Table of Contents

Abstract ........................................................................................................................................... iii
Statement of Originality .................................................................................................................... vi
Table of Contents ............................................................................................................................ vii
List of Tables .................................................................................................................................. xii
List of Figures ................................................................................................................................. xiii
Acknowledgements ......................................................................................................................... xv
Chapter 1 ......................................................................................................................................... 1
Work-Life Balance: Why it Matters and What are the Benefits ...................................................... 1
Ecological Systems Approach: Debunking the Separate Spheres Myth ........................................ 3
Gendered Perceptions of Work-Life Balance ..................................................................................... 5
Work-Life Balance: Private, Organisational, or Social Issue? ....................................................... 7
Work-life balance for the employee ................................................................................................... 7
Work-life balance for the employer .................................................................................................... 8
The social case for work-life balance ............................................................................................... 11
Government case for work-life balance ............................................................................................. 13
Chapter Summary ............................................................................................................................ 15
Overall Research Aims ..................................................................................................................... 16
Structure of the Thesis .................................................................................................................... 16
Chapter 2 ......................................................................................................................................... 19
Work-Life Balance: Past and Current Theoretical Approaches .................................................... 19
Past Theoretical Approaches .......................................................................................................... 21
Role theory ....................................................................................................................................... 22
Role balance theory .......................................................................................................................... 23
Work-life conflict and the scarcity approach .................................................................................... 24
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work-life enrichment and enhancement approach</td>
<td>25</td>
</tr>
<tr>
<td>Work-life balance</td>
<td>26</td>
</tr>
<tr>
<td>Current Theoretical Approach</td>
<td>28</td>
</tr>
<tr>
<td>Research Questions: Identifying Gaps in the Work-Life Literature</td>
<td>31</td>
</tr>
<tr>
<td>Chapter Summary</td>
<td>33</td>
</tr>
<tr>
<td>Chapter 3</td>
<td>34</td>
</tr>
<tr>
<td>Initial Validation of a New Work-Life Balance Measure</td>
<td>34</td>
</tr>
<tr>
<td>Existing Work-Life Balance Measures</td>
<td>36</td>
</tr>
<tr>
<td>Scale Development</td>
<td>37</td>
</tr>
<tr>
<td>Aims and Goals</td>
<td>38</td>
</tr>
<tr>
<td>Method</td>
<td>39</td>
</tr>
<tr>
<td>Participants and Procedure</td>
<td>39</td>
</tr>
<tr>
<td>Measures</td>
<td>41</td>
</tr>
<tr>
<td>Data analysis</td>
<td>45</td>
</tr>
<tr>
<td>Results</td>
<td>46</td>
</tr>
<tr>
<td>Data screening</td>
<td>46</td>
</tr>
<tr>
<td>Confirmatory Factor Analysis</td>
<td>47</td>
</tr>
<tr>
<td>Model refinement</td>
<td>51</td>
</tr>
<tr>
<td>Differentiating Conflict, Enrichment, and Balance</td>
<td>53</td>
</tr>
<tr>
<td>Discriminant validity</td>
<td>53</td>
</tr>
<tr>
<td>Construct validity</td>
<td>60</td>
</tr>
<tr>
<td>Latent work-life balance variable</td>
<td>61</td>
</tr>
<tr>
<td>Discussion</td>
<td>66</td>
</tr>
<tr>
<td>Chapter 4</td>
<td>69</td>
</tr>
<tr>
<td>Study 2: Testing a New Model of Work-Life Balance</td>
<td>69</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Models of Work-Life Balance</td>
<td>71</td>
</tr>
<tr>
<td>Antecedents of Work-Life Balance</td>
<td>75</td>
</tr>
<tr>
<td>Antecedent resources that aid work-life balance.</td>
<td>75</td>
</tr>
<tr>
<td>Demand variables: Antecedent variables that reduce work-life balance.</td>
<td>79</td>
</tr>
<tr>
<td>Consequences of Work-Life Balance</td>
<td>84</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>84</td>
</tr>
<tr>
<td>Family satisfaction</td>
<td>86</td>
</tr>
<tr>
<td>Work-life balance as a mediator</td>
<td>87</td>
</tr>
<tr>
<td>Theoretical Framework of Current Study</td>
<td>91</td>
</tr>
<tr>
<td>Aims, Hypotheses, and Research Questions</td>
<td>95</td>
</tr>
<tr>
<td>Relationship between demand variables and work-life balance.</td>
<td>96</td>
</tr>
<tr>
<td>Relationship between resource variables and work-life balance.</td>
<td>96</td>
</tr>
<tr>
<td>Work-life balance as a mediator</td>
<td>96</td>
</tr>
<tr>
<td>Method</td>
<td>97</td>
</tr>
<tr>
<td>Participants</td>
<td>97</td>
</tr>
<tr>
<td>Results</td>
<td>99</td>
</tr>
<tr>
<td>Data management</td>
<td>99</td>
</tr>
<tr>
<td>Descriptive statistics</td>
<td>100</td>
</tr>
<tr>
<td>Steps in model testing</td>
<td>105</td>
</tr>
<tr>
<td>Measurement model</td>
<td>105</td>
</tr>
<tr>
<td>Model testing</td>
<td>106</td>
</tr>
<tr>
<td>Mediation Analyses</td>
<td>114</td>
</tr>
<tr>
<td>Work-family enrichment as a mediator</td>
<td>116</td>
</tr>
<tr>
<td>Family-work enrichment as a mediator</td>
<td>118</td>
</tr>
<tr>
<td>Work-family conflict (strain-based) as a mediator</td>
<td>120</td>
</tr>
<tr>
<td>Topic</td>
<td>Page</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Family-work conflict (strain-based) as a mediator.</td>
<td>121</td>
</tr>
<tr>
<td>Balance as a mediator.</td>
<td>122</td>
</tr>
<tr>
<td>Summary of Results</td>
<td>123</td>
</tr>
<tr>
<td>Discussion</td>
<td>128</td>
</tr>
<tr>
<td>Work-life balance as a mediator.</td>
<td>131</td>
</tr>
<tr>
<td>Implications</td>
<td>133</td>
</tr>
<tr>
<td>Limitations</td>
<td>134</td>
</tr>
<tr>
<td>Chapter 5</td>
<td>135</td>
</tr>
<tr>
<td>Study 3: Longitudinal Relationships between Support, Work-Life Balance, and Job and Family Satisfaction</td>
<td>135</td>
</tr>
<tr>
<td>Introduction</td>
<td>136</td>
</tr>
<tr>
<td>Theoretical Background</td>
<td>137</td>
</tr>
<tr>
<td>Longitudinal Studies</td>
<td>140</td>
</tr>
<tr>
<td>Longitudinal studies of work-life conflict and satisfaction</td>
<td>141</td>
</tr>
<tr>
<td>Longitudinal studies of work-life enrichment and satisfaction</td>
<td>144</td>
</tr>
<tr>
<td>Studies Linking Support, Work-Life Balance, and Satisfaction</td>
<td>149</td>
</tr>
<tr>
<td>Aims of Present Study</td>
<td>151</td>
</tr>
<tr>
<td>Method</td>
<td>152</td>
</tr>
<tr>
<td>Participants and Procedure</td>
<td>152</td>
</tr>
<tr>
<td>Measures</td>
<td>154</td>
</tr>
<tr>
<td>Results</td>
<td>154</td>
</tr>
<tr>
<td>Statistical analyses</td>
<td>154</td>
</tr>
<tr>
<td>Data management</td>
<td>158</td>
</tr>
<tr>
<td>Summary Data</td>
<td>159</td>
</tr>
<tr>
<td>Cross-lagged Analyses: Model testing</td>
<td>162</td>
</tr>
</tbody>
</table>
Results of cross-lagged analyses ................................................................. 169
Mediation Analyses: Model Testing ........................................................... 171
Cross-lagged relationships between predictors and mediators .................... 171
Cross-lagged relationships between mediators and outcomes ...................... 175
Cross-lagged relationships between predictors and outcomes ...................... 179
Summary of Results ..................................................................................... 182
Discussion ................................................................................................. 184
Chapter 6 .................................................................................................... 192
General Discussion: Implications for Practice and Organisations ................ 192
Overview ...................................................................................................... 192
Importance of Work-Life Balance ............................................................... 193
Validation of a New Work-Life Balance Measure: Study 1 ......................... 196
Testing a New Model of Work-Life Balance: Study 2 ................................. 197
Longitudinal Relationships between Support, Work-Life Balance and ...... Well-being: Study 3 .......................................................... 200
Limitations of this Research ...................................................................... 203
Practical Implications ................................................................. 204
Directions for Future Research ................................................................. 210
Conclusion .................................................................................................. 213
Appendix: Work-Life Balance Survey ....................................................... 215
References ................................................................................................. 224
List of Tables

Table 3.1. CFA of Work-Life Balance Measure ...................................................... 53
Table 3.2. CFA of Work-Life Balance, Work-Family Conflict, Work-Family Enrichment ................................................................. 57
Table 3.3. Means, Standard Deviations, Zero-Order Correlations, and Correlations among Latent Variables .................................................. 59
Table 3.4 Frone’s Plus Alternate Models of Work-Life Balance ...................... 65
Table 4.1. Means, Standard Deviations and Range of Scores .......................... 101
Table 4.2. Zero Order and latent Variable Correlations ................................. 102
Table 4.3. Fit Statistics for Alternative Models of Work-Life Balance ............ 109
Table 5.1. Means, Standard Deviations, Zero-Order correlations, and Correlations among Latent Variables ................................................. 159
Table 5.2. Goodness of Fit Statistics for Cross-Lagged Relationships .......... 166
Table 5.3. Goodness of Fit Statistics for Cross-Lagged Relationships between Predictors and Mediators ..................................................... 172
Table 5.4. Goodness of Fit Statistics for Cross-Lagged Relationships between Mediators and Outcomes ....................................................... 176
Table 5.5. Goodness of Fit Statistics for Cross-Lagged Relationships between Predictors and Outcomes ..................................................... 179
List of Figures

Figure 3.1. Model 1. One-factor model of work-life balance ........................................ 51
Figure 3.2. Model 2. Hypothesised two factor model of work-life balance ........... 51
Figure 3.3. Model 4: Best fitting model for Work-Life Balance Scale .................. 55
Figure 3.4. Model 2, All items loaded onto their respective latent variable .......... 58
Figure 3.5. Model 1: Frone’s (2003) model of work-life balance ....................... 62
Figure 3.6. Model 2: Alternative work-life balance model ................................. 63
Figure 3.7. Model 3: All items plus work-life importance .................................... 64
Figure 4.1. Frone’s four-fold taxonomy of work-life balance .............................. 73
Figure 4.2. Model 1: Frone’s model of work-life balance .................................. 106
Figure 4.3. Model 2: Alternative model of work-life balance ............................ 107
Figure 4.4. Model 3: Balance only ......................................................................... 108
Figure 4.5. Results of Model 1 (Frone’s) .............................................................. 110
Figure 4.6. Results of Model 2 (Alternative) .......................................................... 111
Figure 4.7. Results of Model 3 (Balance only) ...................................................... 112
Figure 4.8. Two step process of mediation (Shrout and Bolger, 2002)............... 115
Figure 4.9. Work family enrichment as a mediator between support and job satisfaction ........................................................................................................ 116
Figure 4.10. Family-work enrichment as a mediator between support and family satisfaction ...................................................................................................... 118
Figure 4.11. Work family conflict as a mediator between demand variables, organisation support and job satisfaction .............................................................. 120
Figure 4.12. Family-work conflict as a mediator between family support, family demands and family satisfaction ................................................................. 121
Figure 4.13. Balance as a mediator between family support and satisfaction .......... 122
Figure 4.14. Simplified final alternative model of work-life balance ..................... 124
Figure 4.15. Simplified model of mediation analyses ........................................ 126
Figure 5.1. Confirmation of latent work-life balance variable on T2 data ............ 156
Figure 5.2. Model O: Stability model .................................................................. 162
Figure 5.3. Model 1: Hypothesised standard causality model .............................. 163
Figure 5.4. Model 2: Hypothesised reverse causality model ............................... 164
Figure 5.5. Model 3: Hypothesised reciprocal model ......................................... 165
Figure 5.6. Final results of best fitting reciprocal causality model ...................... 168
Figure 5.7. Best fitting model (reciprocal causality model) of cross-lagged
relationships between predictors and mediators .............................................. 171
Figure 5.8. Best fitting model (reverse causality model) of cross-lagged
relationships between mediators and outcomes ............................................. 175
Figure 5.9. Best fitting model (reciprocal causality model) of cross-lagged
relationships between predictors and outcomes ............................................. 178
Acknowledgements

First and foremost, I would like to formally acknowledge the Australian Research Council Discovery Scheme for their grant for Work-Life Balance Project (DP0770109) and for their funding for my PhD candidature at the onset. I would like to thank Chief Investigator Professor Paula Brough and the wonderful Dr Jackie Holt for being part of the Work-Life Balance Project research team and for their guidance and assistance with data collection and expertise. I cannot thank enough my current principle supervisor, Professor Peter Creed, for his unwavering support over the last few years, and his belief in me. Without Peter’s encouragement and expert guidance, I would not have seen this PhD to completion. I would also like to thank Dr Michelle Hood for coming on board recently to help me pull this across the line! I thank the School of Psychology at Mt Gravatt for my CAPRS scholarship and Dianna Fisher for always being at the end of the phone to help out with administration issues. I thank Griffith Graduate Research School for my scholarship to allow me to continue my work and special thanks to the Dean Professor David Shum for his understanding and support and to Professor Keithia Wilson for being there when the going got tough!

My family is very important to me and I could not have brought “Big Bertha” to fruition without them. To my wonderful partner Jack for the endless cups of tea and encouragement and support during the ups and downs of writing this PhD, I am eternally grateful. I thank my children Liam and Francesca, for keeping me grounded and reminding me “When are you going to get a proper job?” Well guess what – I think the time to get a proper job has come! To all my friends and colleagues, thanks for keeping me going with your humour, emergency coffee and cake meetings and encouragement to reach the light at the end of the PhD tunnel. In particular, I would
like to thank Maggs, Jane, Virginia, Anette, Jackie, and Jen. You are all amazing women.

As for my own work-life balance: I work with people I like, I live with the people I love and I love the challenge of what I do and the lessons that I have learned along the way. For this I am extremely grateful.
Chapter 1

Work-Life Balance: Why it Matters and What are the Benefits

Work and family are two of the most important domains for most people (Michel, Kotrba, Mitchelson, Clark, & Baltes, 2011), and equally so for Australian men and women (Squire & Tilly, 2007). Finding a balance between paid work and family or other non-work commitments has generated substantial interest for researchers and applied business professionals (Grzywacz & Carlson, 2007) as well as extensive public debate and policy innovation (Pocock, 2003). The surge of interest has coincided in part, with the increase in women’s participation in the workforce (Frone, 2003; Pocock, 2005a), with “working mothers being the norm rather than the exception” (Jones, Burke, & Westman, 2006, p. 1). The increase of employed women has contributed to the shift from the traditional male-breadwinner and female homemaker household to the dual-earner household (Roos, Trigg, & Hartman, 2006).

Other contributing demographic factors in the work-life debate are; the increase in the number of dual-professional couples and single earner families (Frone, 2003; Greenhaus & Allen, 2010; Pocock, 2003), more sandwiched-generation families, who have the double responsibility of child care and eldercare (Hammer, Cullen, Neal, Sinclair, & Shafiro, 2005), decreasing fertility rates (McDonald, 2000), an increased proportion of educated employees, who hold a university or college degree (Innstrand, 2009), as well as other societal issues such as delayed parenting and the aging population (Brough, Holt, Bauld, Biggs, & Ryan, 2008). Although, it has been acknowledged that working parents who care for dependent children (infants to teenagers) are the group most likely to experience work-life challenges, most Australian workers, with and without caring responsibilities, value a positive
relationship between their work lives and personal lives (Pocock, Williams, & Skinner, 2007).

There has been a move to broaden the conceptualisation of work-family balance to work-life balance to be more inclusive of non-work areas beyond the family (Frone, 2003; Keeney, Boyd, Sinha, Wesring, & Ryan, 2013). The need to care for family has been well recognised in work-life research (Hall, Kossek, Briscoe, Pichler, & Lee, 2013), and family can be expanded to include “spouse or unmarried partner, children, parents, or others with whom you share your life and/or home” (p. 541). However, other non-work roles, such as, being involved in the community (Voydanoff, 2001), and engaging in personal interests, such as exercise and sport, hobbies, and study are important factors in the work-life debate (Hall et al., 2013).

Therefore, the term work-life as opposed to work-family is the preferred term used throughout this thesis in reference to work-life balance, work-life conflict, and work-life enrichment. However, the term work-family will be used to preserve authenticity when commenting on research conducted by other authors whose study focused specifically on work and family.

It is widely reported that technology advancements have meant that boundaries between our work and non-work lives have become blurred (Chesley, 2005; Major & Germano, 2006). More sophisticated communication technology (i.e., mobile phones, home computers, hand-held computers, and laptops) mean that employees can have close contact with their workplace at any time or from any place (Beauregard & Henry, 2009), and employees are available to work virtually anywhere and more often (Hill, Ferris, & Martinson, 2003; Major & Germano, 2006; O'Driscoll, Brough, & Kalliath, 2006). Being able to work from home (telework or telecommunicating) has advantages and disadvantages. It may be perceived as a social exchange process,
whereby the employee feels that they are supported by their employer (Beauregard & Henry, 2009), and thus, are able to enhance flexibility and reduce work-life conflict (Hill, Hawkins, Ferris, & Weitzman, 2001), be more available for family members, and spend less time and money in commuting (Major & Germano, 2006).

On the other hand, technological advances have the potential to decrease work-life balance, as employers can, and do, contact their employees outside of their working hours (Chesley, 2005). Although, there are some concerns that work can cross the boundary into home life via technology, these issues of blurred boundaries may become obsolete as the next generation of workers and parents have grown up in a technological age and know no other way of functioning. Recently, it has been noted, that younger employees do not want to work in the same manner as their parents: they want to work in partnership with their employers to shape their jobs, and have a choice of how and where they work (Byrne, 2005). It is evident that not only is work-life balance becoming more important, it is also becoming increasingly complex (Allis & O'Driscoll, 2008).

**Ecological Systems Approach: Debunking the Separate Spheres Myth**

Traditionally, work and family were viewed as being unconnected spheres of life, whereby individual experiences were examined in either the work or non-work domain (Brotheridge & Lee, 2005). The myth that work and family were separate domains was debunked by Kantor in 1977, and since then researchers and social commentators have continued to expand on the premise that not only are work and family domains interconnected and interdependent (Edwards & Rothbard, 2000; Greenhaus, 2008; Voydanoff, 2005c), there are linkages to the community (Voydanoff, 2005a), and the broader realms of society (Pocock, 2005a). The study of these interconnections is founded in the ecological systems approach.
(Bronfenbrenner, 1992), which posits that domains such as work, family, and community are microsystems that interact and influence one another through permeable boundaries to create the work-family mesosystem (Hill, 2005; Voydanoff, 2002; Voydanoff, 2005b). The work and life mesosystem is where work and life domains intersect and affect one another (Skinner & Pocock, 2011). Hobfoll (2001) describes the “individual-nested in family-nested in tribe” as a metaphor which means that the individual cannot be isolated from the ‘greater whole’ and any attempt to do so, will lead to less predictive causality” (p. 338). Therefore, research on work-life interface should include all facets of these domains, in order to understand the complex interplay that exists between and within work, families, and community (Voydanoff, 2005b).

The model of spillover, grounded in ecological system and role theory, has been used to explain the interconnection in the work-life interface at the intra-individual level (Brotheridge & Lee, 2005). Spillover proposes that experiences in one domain (i.e., work) may influence or produce changes in an individual’s values or behaviour, which may have a positive and/or negative effect on an individual’s functioning in other domains, such as family or other non-work settings (Grzywacz & Marks, 2000b). For example, a stressful day at work may produce emotional fatigue, so when the individual goes home or to a non-work event, the emotional fatigue stays with them, and they do not function to their best ability. Spillover is described as a “within-person across-domain transmission” (Bakker, Demerouti, & Burke, 2009, p. 23).

In contrast, the crossover model explains the interconnection and transmission of well-being states at the inter-individual level between closely related or connected individuals (Westman, 2001). Crossover is a dyadic process whereby stress or strain
experienced by one person generates a similar response in another person, such as, an individual’s stress at work producing a stress reaction in his or her spouse at home or from the spouse at home to the individual at work (Westman, 2001). Crossover is defined as a “bi-directional transmission of positive and negative emotions, mood, and dispositions between intimately connected individuals such as spouses or organizational team members” (Westman, Brough, & Kalliath, 2009, p. 589), or between supervisors and subordinates (Carlson, Ferguson, Kacmar, Grzywacz, & Whitten, 2011).

**Gendered Perceptions of Work-Life Balance**

Even though there has been a dramatic increase in women in the workforce, the organisation of labour in the workplace and family has not changed proportionately (Keene & Quadagno, 2004). Therefore, understanding the linkage and influence of sex and gender in the interface between work and family roles is important (Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005; Powell & Greenhaus, 2010). Gender is a demographic characteristic that has been frequently examined in work-life research. For example, some studies have found that women report higher levels of work-life conflict than men, whereas other studies report that men and women share similar experiences with work-life conflict (Eby et al., 2005). Powell and Greenhaus (2010) suggested that it was essential to make a distinction “between the terms *sex*, which refers to the binary categories of male and female, and *gender*, which refers to the psychosocial implication of being male or female” (p. 1012). However, in their comprehensive study of gender differences in work-family conflict, Duxbury and Higgins (1991) found that no gender difference was observed between work and family involvement and both types of conflict. This could be because men may have been socialised to adapt to stressful working conditions,
whereas women are more able to cope with stressors in the home domain (Duxbury & Higgins, 1991). Furthermore, women, who view their work as important, would be in a similar position as men, and, therefore, experience similar levels of work-family conflict. However, different experiences in managing the work-life interface exist for men and women.

There is men’s work-life problem and women’s work-life problem.

Dropping dead from career-driven stress, or shrivelling emotionally from never seeing one’s children, is a different issue from exhaustion because of the double shift, or not getting promotion because of career consequences (Connell, 2005, p. 378).

Yet, gendered perceptions of work-life balance have been pervasive in organisational culture, where balancing work and family has been seen as a woman’s issue (Hill et al., 2001; McDonald, Brown, & Bradley, 2005). It is increasingly apparent that achieving work-life balance is equally important for both men and women, and that gender differences are diminishing as more men are assuming greater family responsibilities (Carr, 2002; Connell, 2005; Thornwaite, 2004).

Although men’s contribution to household chores has more than doubled, women still continue to share the main responsibility for home and dependent care (Keene & Quadagno, 2004). Furthermore, many workplaces continue to be structured around the traditional (male model) of work. This traditional employment model assumes the ideal worker works continuously and full-time, and can meet the demands of paid work without any interference from family life (Lewis, Gambles, & Rapoport, 2007). Many work arrangements make it difficult to combine work and care responsibilities, as the “employee is expected to put the workplace first, to be available out of hours...
and not to have sick children or children who are on school holidays” (McDonald, 2000, p. 13).

**Work-Life Balance: Private, Organisational, or Social Issue?**

Many commentators have framed work-life balance as a “choice and a personal responsibility” (Lewis et al., 2007, p. 365), yet the responsibility should be shared amongst the key stakeholders, which include individuals, families, employers, unions, community, and governments (Bailyn, Drago, & Kochan, 2001; Squire & Tilly, 2007). Work-life balance is not only a necessity for individuals and their families but for organisations and society as a whole when viewed in light of the increased labour market shortages, decreased fertility rate, the aging population, increased technological advancement, competitiveness of business, and globalisation. Work-life balance has been viewed as a strategic human resource management issue to attract, motivate, and retain highly skilled employees (De Cieri, Holmes, Abbott, & Pettit, 2005). Pocock (2005) suggested that rationales for work-life balance should include the personal case, business case, social case, and political case.

**Work-life balance for the employee.**

Researchers have suggested that work and non-work domains (family and personal life) are the primary domains for an individual, and the challenge of balancing work and non-work demands is a major concern for employees (Frone, 2003). Having work-life balance means finding a way to strike a balance between fulfilling both work commitments and care responsibilities and other activities that are important to the individual. Individuals invest in other activities (e.g., meditation, spiritual commitments, exercise and physical activities, hobbies, reading, and study) because they consider them beneficial to their health and well-being (Allis & O'Driscoll, 2008). For many employees, work satisfies many of their needs, such as
financial needs, interpersonal needs (i.e., social support from supervisors and co-workers), and power and status (Erdogan, Bauer, Truxillo, & Mansfield, 2012). Performing a meaningful job that is aligned with an individual’s skill, values, and interests, promotes overall well-being and satisfaction with life. Therefore, if an individual experiences balance between their work and non-work domains, their well-being is improved (Greenhaus, Collins, & Shaw, 2003). This occurs because balanced individuals are less likely to become stressed if they are engaging in roles and activities that are important to them, which enables them to be more resilient to work-life conflict and stress (Greenhaus et al., 2003). Furthermore, individuals who feel their work and non-work lives are balanced have greater job satisfaction and perform better in their work role (Valcour, 2007). However, individuals who experience negative work-life balance, or imbalance are more likely to experience negative consequences such as poor mental health (Frone, Russell, & Cooper, 1997; Grzywacz & Bass, 2003; Hammer et al., 2005), poor physical health (Frone et al., 1997; Grandey & Cropanzano, 1999), and a decrease in general well-being (Noor, 2004).

**Work-life balance for the employer.**

A challenge for organisations in Australia is to attract, motivate and develop strategies to retain highly skilled employees, in particular, women in management (Abbott, De Cieri, & Iverson, 1998). As the number of women in management increases, the need for organisations to provide work-life balance policies becomes more critical. Organisations have introduced work-life balance arrangements and practices to assist their employees manage their work and personal lives (Beauregard & Henry, 2009; McCarthy, Darcy, & Grady, 2010), and to accommodate the needs of changing family structures and managing multiple roles of work and family (Allen,
Over 20 years ago, 100 work-family practices were identified from research, which signalled the importance of work-life balance (Bardoel, Tharenou, & Moss, 1999). Bardoel et al. (1999) condensed these into 36 common practices, which fitted into five categories: flexible working conditions, leave options (e.g., maternity and paternity leave), child and dependent care benefits (e.g., child and elder care subsidies, onsite childcare), information services and personnel policies (e.g., access to educational programs or counselling), and organisational cultural issues (e.g., family sensitive supervisors).

In particular, flexible working conditions (e.g., flexibility in time and place of work, and compressed working week) have been promoted as being a solution to help employees manage their competing demands (Shockley & Allen, 2007), and have a positive impact on job satisfaction (McNall, Masuda, & Nicklin, 2010). However, there have been inconsistent findings as to whether flexible work arrangements and work-life benefits are sufficient to decrease work-life conflict (Eby et al., 2005; McDonald et al., 2005; Shockley & Allen, 2007; Smithson & Stokoe, 2005), and there is some evidence that some flexible working arrangements (e.g., working remotely and compressed work week) may lead to increased work intensification and poorer health outcomes (Kelliher & Anderson, 2010). There is also a suggestion that the business case for offering family-friendly or work-life balance strategies is primarily in the organisation’s best interest, and has more benefits for the employer than employee, such as cost reduction and productivity improvements (De Cieri et al., 2005).

Although there is an array of work-life practices available and there is evidence that these practices are beneficial for employee well-being, there remains a considerable gap between policy provision and utilisation of policies (Dikkers et al., 2001).
2007; McDonald et al., 2005). McDonald et al. (2005) suggested that five dimensions explain the provision-utilisation gap in work-life policy in Australia. These dimensions are: lack of managerial support for work-life balance, gendered nature of policy utilisation, perceptions of negative career consequences, organisational time expectations, and perceptions of unfairness by employees without family responsibilities. De Cieri et al. (2005) proposed that the lack of communication and education about work-life practices and policies was a dominant theme. De Cieri et al. identified that organization inaction (i.e., lack of communication, education, and support from management) and organizational values (i.e., focus on programmes rather than organisational change and how the work gets done) were the most influential barriers to the use of work-life balance practices (p. 98). Thompson, Beauvais, and Lyness (1999) reported that the presence of an organisational culture that supported work-life balance was associated with positive attitudes to these formal policies amongst professional employees. Employees need to be viewed as key stakeholders within organisations, who are instrumental in the success and utilisation of work-life balance strategies that are provided (De Cieri et al., 2005).

A good organisational culture leads employees to become more satisfied with their jobs and this, in turn, reduces labour costs through decreased turnover, less recruiting, and fewer training costs (Abbott et al., 1998). A key consequence of failing to deal with work-life balance is employee turnover, because the costs associated with recruiting, training, and replacing employees is substantial. Additionally, work-life conflict has been linked to absenteeism; Abbott et al. (1998) using a costing formula developed by Cascio (1991), identified that it would cost an organisation approximately $75,000 if a woman manager decided to leave due to work-life conflict. Organisations losing highly trained women from the workforce
has become a growing concern (Stone & Lovejoy, 2004). There has been an
assumption that becoming a parent leads to an increased level of turnover and less
organisational commitment, especially for professional women (Korabik & Rosin,
1995); that women choose to interrupt their careers to become a stay-at-home parent
(Stone & Lovejoy, 2004). However, family factors were not the primary reason for
resignation; women with dependent children make the choice to work elsewhere
rather than stay at home, or change professions in order to have more work-place
flexibility (Trudgett, 2000).

The social case for work-life balance.

Workers who are satisfied with their work-life balance are
likely to be happier social citizens, parents, carers and
more productive workers. They may work longer and more
productively over their lifetime, making a greater contribution,
and their health – along with the health of their dependents
and partners – may be better, reducing public health expenditure
and generally increasing social well being (Pocock, 2005, p.202).

Work-life balance affects individuals, their families, their workplace, and the
community in which they live. Social integration involves participation in the
community and involvement with friends and neighbours (Voydanoff, 2005b). This
can be a formal arrangement, such as volunteering for an organisation, or informal
social relationships such as helping or receiving help from friends and neighbours.
Community participation can be viewed as a demand (e.g., demands on time) or a
resource (e.g., social support). Voydanoff (2005b) found that participation in the
community influenced work-life balance, which in turn had an impact on job
satisfaction and marital satisfaction.
There is a sense in the community that there is a decline in quality family time and community participation (Guest, 2002). The extra demands and pressure from work has encroached into employee’s weekends and evenings. This results in less time for caring for elderly relatives (Guest, 2002) and increasing numbers of so-called latch-key kids, who care for themselves due to their parents working (Garey, Hansen, Hertz, & MacDonald, 2002). Additionally, due to the changes of family structures and labour force participation of women, it has become increasingly difficult for family members to care for elderly relatives and for those with a disability, resulting in a “crisis in caregiving” (Garey et al., p.703). Meeting the needs of dependent family members is often viewed as “personal failure to meet family obligations”, rather than acknowledging the need for an array of social and public policies (Garey et al., 2002, p.704). Furthermore, there is now increasing evidence that work-life imbalance influences other social issues, such as delayed parenting, declining fertility rates, employment of older workers, and a decreasing labour supply (Brough et al., 2008).

For example, it is widely recognised that Australia, like many other OECD countries, has an ageing population and an ageing workforce (Shacklock, Brunetto, & Nelson, 2009). Populations are ageing due to increased longevity and decreased fertility. According to an OECD report ‘Live Longer, Work Longer’, life expectancy has increased dramatically, from 64 years in 1950 to 77 years in 2000, whilst the fertility rate has fallen from an average of 3.23 births in 1950 to 1.78 births in 2000 (OECD, 2006). It is expected that by 2015, the number of people retiring will exceed the number entering the workforce, which will have huge implications for labour supply and demand. Older workers are willing to remain in the workforce, as work is often important; however factors such as flexible working arrangements, being able
to manage their interests outside the working environment, and supportive management are positively linked to their intentions to continue working (Shacklock & Brunetto, 2011).

**Government case for work-life balance.**

Because organisations operate within larger socio-political cultures, the role of government in supporting organisations to achieve work-life balance is another vital dimension (Kinnunen, Mauno, Geurts, & Dikkers, 2005; Pocock, 2003). Work-life issues have been of interest to the Australian government since 2002, when former Prime Minister John Howard publically announced that work and family issues were a “barbeque stopper”; meaning that people around the country were talking about how their work was intruding beyond the workplace, and making it more difficult to find a work-life balance (Pocock, Charlesworth, & Chapman, 2013). More recently, former Prime Minister Julia Gillard, at her National Press Club conference in January 2013, stated it was important that the government “support modern families as they cope with the pressure of modern life”.

Originally, the prevailing government rhetoric was that the work-care regime was an *individual choice*, and that care responsibilities were viewed as a *private issue*, whereby employers could voluntarily introduce family-friendly benefits (Charlesworth, 2011). However, this has changed in recent years with the Labour government in Australia introducing legislation to allow employees to request flexibility to manage their work and care responsibilities at home (Skinner & Pocock, 2011). This has meant introducing a paid parental scheme, expanding anti-discrimination protection for workers with care responsibilities, and improving the quality and access to child care services (Pocock et al., 2013). In 2009, Australia introduced the “right to request” as part of the Fair Work Act, to support employees
seeking flexibility, with the onus on employers to give reasonable consideration to this request. Then, on Mother’s Day in 2010, the government introduced Australia’s first paid parental scheme, with payments commencing in January 2011 (Baird & Whitehouse, 2012). The scheme had three objectives: to improve infant and maternal well-being by allowing mothers to stay home for longer, increase women’s workforce participation by forming a tangible link with the workplace, and to recognise the caring roles of parents by increasing gender equity at both home and at work (Baird & Whitehouse, 2012). Furthermore, this scheme recognised that the government had a role to play in assisting working families manage their work-life balance, rather than viewing it as an individual or private concern (Baird, 2011).

More recently, in January 2013, Australia introduced a two-week government-funded Dad and Partner Pay Scheme (Rush, 2013). This policy was a significant addition to the existing paid parental scheme, and allows eligible working fathers or partners, including adopting parents and same-sex partner parents, financial support to take leave at the time of a child’s birth. This statutory entitlement recognises the importance of fatherhood by enabling fathers to develop a co-parenting relationship and increase practical and emotional bond with their infant (Rush, 2013). The introduction of the Dad and Partner Pay Scheme has the potential to address some of the workplace barriers and utilisation of family-friendly policies that appear to be aimed at working mothers, and sends an important message to employers and fathers that it is acceptable and advantageous to take leave when their child is born (Baird & Whitehouse, 2012).

As well as parental leave and flexible workplace legislation, the Anti-Discrimination Act 1991 (Qld) establishes a legal responsibility for employers to provide workplaces free from discrimination, sexual harassment, victimisation, and
vilification (Anti-Discrimination Commission of Queensland: ADCQ, 2013). Bullying behaviours in the workplace (i.e., harassment, social exclusion etc.) impact an individual’s well-being, which then impacts their non-work life. If an employee breaches the Anti-Discrimination Act 1991 whilst at work, they can be held liable for their behaviour separately and/or in conjunction with the employer. This means that the employer must take reasonable steps to create a safe workplace, as they can ultimately be held responsible for the behaviour of their employees.

It is widely accepted that the low fertility rates, in almost all developing countries, have been influenced by government policy (McDonald, 2006). Introducing paid parental leave for working families, and the right to request flexible leave legislation is a step in the right direction to improve the fertility rates of Australian families. Research has shown that direct financial incentives are effective in raising fertility, especially “access to affordable childcare, access to long-term parental leave and the level of maternity leave payments” (McDonald, 2006, p. 504). Women and men want access to flexible working schedules and reduced hours when they have dependent children or dependent relatives, and not to be penalised or discriminated against for taking advantage of policies that are provided (Stone & Lovejoy, 2004).

Chapter Summary

This chapter provided an overview of work-life balance by examining; the changing nature of work from breadwinner model to dual career model, the impact of technology, and gendered perceptions. The myth that work, family, and other non-work roles were separate spheres was questioned, and Bronfenbrenner’s (1992) ecological system approach was introduced. Responsibility for, and importance of
work-life balance, was viewed from the perspective of all key stakeholders; the employee, the employer, society, and the government.

The following chapter will discuss past and current theoretical approaches to work-life balance, and define the concepts of conflict, enrichment, and balance. Research questions and gaps in current work-life research will be discussed.

**Overall Research Aims**

First, this study aims to validate a recently developed scale of perceived work-life balance. This measure assesses the degree of work-life balance perceived by employees.

Second, this research aims to explore and test a new model of work-life balance, building on previous research in the field. The model will identify the processes by which work and non-work domains predict work and non-work well-being, whilst controlling for the influence of perceived work-life balance. There has been a paucity of Australian studies, and none that has examined the antecedents and consequences of work-life balance from both the work and non-work perspectives, and including the positive and negative spillover between both domains.

Third, this research will contribute practically to Australian and international organisations by identifying factors that contribute to the experience of wellbeing and that prevent adverse personal, familial, and organisational outcomes from occurring. This has the potential to benefit individual workers and their families through improved satisfaction with both their jobs and family life.

**Structure of the Thesis**

The thesis has been structured into six chapters, with Chapters 1 and 2 being the introduction chapters and Chapter 6 being a general discussion. Chapters 3, 4, and 5, are three self-contained chapters, which allow the reading of each chapter on its
own. These three chapters contain an introduction, research questions, background theories, method, results, and discussion. A brief summary of all chapters follows below.

**Chapter 2:** This chapter will give an overview of work-life conflict, work-life enrichment, and work-life balance constructs. Past and current theoretical conceptualisations of work-life balance will be discussed.

**Chapter 3:** Study 1 will provide initial validation for the recently developed Balance Scale (Brough, Kalliath, & O'Driscoll, 2009). The construct validity of the measure was established by assessing factor structure, discriminant validity, and internal reliability. Also, convergent validity, divergent validity and relationships with other concepts will be considered. The expected relationships between the other concepts and work-life balance will be discussed prior to reporting the results.

**Chapter 4:** Study 2 will further validate the Balance Scale reported in Study 1 by including it in a structural model that examines the antecedents and consequences of work-life balance. Data was collected over two time periods which were one year apart. The Time 1 data will be used in this study (N = 665). Antecedents and consequences of work-life balance will be assessed.

**Chapter 5:** Study 3 uses Time 1 and Time 2 data to test whether the model identified in Study 2 is robust over time. A cross-lagged design will be utilised to identify the best fitting model, from standard causal, reverse causal, and reciprocal causal models.

**Chapter 6:** This chapter offers an integration of the results of the research undertaken in this thesis, and articulates how the major findings contribute to the work-life balance literature. The chapter will discuss the practical implications for individual employees and organisations. It will then conclude with a general
discussion of the overall limitations of this research and offer recommendations for future work-life balance research and practice.
Chapter 2

Work-Life Balance: Past and Current Theoretical Approaches

Work-family and work-life balance has received widespread attention across a wide array of academic disciplines; these include organisational behaviour, psychology, sociology, human development, gerontology, management, and occupational health (Casper, Eby, Bordeaux, Lockwood, & Lambert, 2007; Voydanoff, 2002). This has led to some scholars arguing that there is an absence of shared theoretical perspectives (Grandey & Cropanzano, 1999; Greenhaus, 2008), and a lack of strong conceptual frameworks (Eby et al., 2005; Hobfoll, 1989). Furthermore, there is a lack of empirical evidence in the measurement of work-life balance (Tetrick & Buffardi, 2006), and the various definitions of balance are inconsistent with one another (Greenhaus et al., 2003). Criticisms raised by some scholars in the work-life research field are that there is a lack of sound theoretical framework and that the primary focus on the work-family interface is the negative relationship between work and family (Eby et al., 2005; Grandey & Cropanzano, 1999; Grzywacz & Marks, 2000b).

A further criticism of work-life research is that most of the research has focused on married employees with dependent children (Casper et al., 2007). Although much of the work-life research has been focused on work and family roles (generally employees with dependent children), work-life balance is important to all employees, regardless of their family structure, gender, occupation, or age (McMillan, Morris, & Atchley, 2011), and should be extended to include single, child-free employees, single-parent families, and extended families. Rothausen (1999) suggested that the definition of family should extend to include adults who have never married, both with and without children, but whom may have “special family-like
relations with other persons who are very important to them” (p. 819).

Approximately one third of single, child-free employees felt that their non-work needs were not deemed important by their employer, even though many provided financial assistance and direct care to extended family, friends, and pets (Casper, Weltman, & Kwesiga, 2007). Furthermore, the non-work or life domain consists of multiple social roles, such as family, religion, community, leisure, and study (Frone, 2003). Therefore, the current research will include single, child-free employees, single parents, and married or defacto couples, with and without children, and use the definition that “family” extends to “any group of people related biologically, emotionally, or legally” (McDaniel, Campbell, Hepworth, & Lorenz, 2005, p. 2).

One of the difficulties of synthesising the literature in the work-life (family) interface research is that there have been different terminologies to describe similar concepts or constructs between these two dominant spheres (Carlson, Grzywacz, & Zivnuska, 2009; Greenhaus et al., 2003). Traditional organisational research has tended to focus on the negative states, such as stress and conflict between the work and non-work domains (Cameron, Dutton, & Quinn, 2003; Eby et al., 2005; Gareis, Barnett, Ertel, & Berkman, 2009), without taking notice of the beneficial and reciprocal effects that the work and non-work domains may have on each other (Greenhaus & Powell, 2006; Grzywacz & Carlson, 2007). Increasingly, work-life theorists have recognised that work-family enrichment (also known as enhancement, facilitation, or positive spillover) occurs between work and non-work domains, and that the role in one area can enhance the role in the other (Zimmerman & Hammer, 2010). Enrichment is a concept that suggests the positive process of the work-life interface, whereas conflict is notoriously viewed as a negative process in the work-life interface (Peeters, Wattez, Demerouti, & de Regt, 2009).
Frone’s (2003) definition that work-life balance can be defined as a combination of low levels of work-life conflict and high levels of work-life facilitation has stimulated a great deal of interest in work-life literature (Rotondo & Kincaid, 2008). Although conflict and enrichment have been viewed as the “opposite sides of the same coin” by some researchers, others have found little or non-significant relationships between work-family conflict and work-family enrichment (Powell & Greenhaus, 2006, p. 651). This suggests that work-family enrichment and work-family conflict can be experienced as distinct constructs; therefore, an individual can experience enrichment independently of conflict, or experience both simultaneously (Powell & Greenhaus, 2006). The relationship between work-family conflict and work-family enrichment is complex, and warrants a deeper understanding between how experiences in one role (work/life) can affect experiences in the other role (life/work). Furthermore, Carlson et al. (2009) suggests it is important to consider that work-life balance could be an additional construct beyond work-life conflict and work-life enrichment, and that work-life researchers need to clearly delineate why and how these constructs differ.

Past Theoretical Approaches

The theoretical background in work-life research has been grounded in Bronfenbrenner’s (1989) ecological systems theory (Hammer, Bauer, & Grandey, 2003; Voydanoff, 2002) and role theory (Carlson et al., 2009; Keene & Quadagno, 2004). As described in Chapter 1, ecological systems theory provides a foundation for understanding the principle of inter-relatedness between components of systems, especially the dominant spheres of work, family, and life (Hammer et al., 2003), whereas role theory explains the inter-role conflict that develops as individuals struggle to manage expectations of each role (Bellavia & Frone, 2005). Role balance
theory introduces the positive and negative aspects of managing multiple roles, and looks at the whole system rather than being role specific (Marks & MacDermid, 1996). The scarcity and enhancement approaches were developed to explain the outcomes of inter-role conflict and enrichment (Haar & Bardoel, 2008).

**Role theory.**

Role theory has been the dominant perspective in the work-life conflict literature (Grandey & Cropanzano, 1999). Role theory originated from the early work on organisational stress, and posits that individuals have a limited amount of time, energy, and psychological resources and each life role competes for these finite resources (Kahn, Wolfe, Quinn, & Snoek, 1964). Kahn et al. (1964) predicted that multiple life roles lead to inter-role conflict, which becomes a significant source of strain when individuals feel that they cannot adequately perform each role. Work-life role strain results from the combination of demands from personal, family, and work related spheres of influence (Allen, 2001). Inter-role conflict is likely to increase when demands of any role (i.e., work or family) increases. For example, the expectation that an employee is required to work long hours or has to finish work at home leads to inter-role conflict as work is seen to encroach into family time. Similarly, the demand of having children or caring for elderly parents is likely to have an impact on the work role.

Role theory is predominantly focused on inter-role conflict, and does not take into account the positive relationships that may occur (Grandey & Cropanzano, 1999). Although the obligations and expectations from multiple roles lead to role strain, resources derived from each role may act as a buffer to help individuals cope with these demands. Participating in multiple roles may be rewarding and fulfilling and lead to increased well-being (Reid & Hardy, 1999). Further, it has been
suggested that satisfaction experienced in one role may counterbalance the difficulty experienced in another role, and that it is the quality of each role that affects well-being. A further limitation with role theory is that it is predominantly focused on the work domain, and pays scant attention to the influence of the family or other roles (Grandey & Cropanzano, 1999).

**Role balance theory.**

Role balance theory, as conceptualised by Marks and MacDermid (1996), suggests that positive role balance occurs when an individual is able to positively engage in each of their roles, whereas negative role balance “is the tendency to become fully disengaged in the performance in every role” (p. 421). Role balance encompasses the total role system, and acknowledges the individual across all roles rather than being role specific. There are similarities between role balance theory and Bronfenbrenner’s ecological systems theory, that is, the integration and interrelatedness of all roles. For some people, participating in the multiple roles is an overall positive experience, in which they feel energised and willing to extend themselves; thus, the person is *role-balanced* (Marks & MacDermid, 1996). Each role is approached with *mindfulness* and an attitude of attentiveness and care. If crises occur, the role balanced individual is able to deal more effectively with emergencies than if role balance is lacking. Role balance theory implies that positive role balance leads to role ease, whereas negative role balance leads to role strain. Role balance theory does not propose that work and family activities be considered equal, rather it is suggested that most people prefer to find meaningful experiences in both their work and non-work domains. If an individual is balanced and committed to their roles, then they are more likely to report greater satisfaction and well-being (Marks, Huston, Johnson, & MacDermid, 2012).
Work-life conflict and the scarcity approach.

An assumption of the work-family conflict perspective is that work and non-work lives are separate spheres, and each of these spheres compete for limited resources, such as time and energy (Gareis et al., 2009). Originating from the scarcity hypothesis, the view is that balancing multiple roles will inevitably lead to inter-role conflict (Greenhaus & Powell, 2006), as demands for time and energy compete for limited resources, which results in negative outcomes in both work and home domains. It has been termed the negative approach as it assumes that negative or conflicted relationships occur. According to the scarcity hypothesis, occupying multiple roles creates inter-role conflict and role overload, which leads to psychological distress and exhaustion (Marks, 1977). This original focus on conflict remains more than 25 years after Greenhaus and Beutell (1985) seminal paper on work-family conflict (Gareis et al., 2009). Greenhaus and Beutell’s (1985) defined work-family conflict as “a form of inter-role conflict in which the role pressures from work and family domains are mutually incompatible in some respect. That is, participation in the work (or family) role is made more difficult by virtue of participation in the family (or work) role” (p. 77).

Although the term work-family conflict is used generically, it “is a complex multi-dimensional construct” (Premeaux, Adkins, & Mossholder, 2007, p. 706). It is bi-directional and includes both work-to-family conflict and family-to-work conflict (Carlson, Kacmar, & Williams, 2000; Frone, 2003), has multiple forms (time-based, strain-based, and behaviour-based: Carlson et al., 2006; Greenhaus & Beutell, 1985), and may be specific to various life roles, such as single employees, married or defacto employees, or employees with either dependent children or elder care responsibilities (Premeaux et al., 2007).
Work-life enrichment and enhancement approach.

Although much of the existing research in the work-family interface has been preoccupied with the antecedents and consequences of work-family conflict (Byron, 2005; Eby et al., 2005), there has been an increased interest in examining the benefits of combining work and non-work roles (Zimmerman & Hammer, 2010). Greenhaus and Powell (2006) defined work-family enrichment as “the extent to which experiences in one role improve the quality of life in the other role” (p. 73). Work-family enrichment, like conflict, is bi-directional and includes both work-to-family enrichment and family-to-work enrichment. Participation in one role is made better or easier by participation in another role (Wayne, Musisca, & Fleeson, 2004), as they can often have a positive or enriching effect on each other (Greenhaus & Powell, 2006; Kinnunen, Feldt, Geurts, & Pulkkinnen, 2006).

Sieber’s (1974) theory of role accumulation and Mark’s (1977) expansionist approach questioned the conflict perspective and suggested that engaging in multiple roles could be beneficial for working men and women. Sieber identified four benefits from role accumulation: role privileges, overall status security, resources for status enhancement and role performance, and enrichment for the personality and ego gratification (p. 569), which suggested that the more roles that an individual occupies, the more benefits and privileges they would obtain. Furthermore, the development of skills and knowledge in one role could be applied effectively to another role (Sieber, 1974). Marks proposed the expansion theory as an alternative to the scarcity approach. Marks suggested that multiple roles could enhance existing resources and create additional energy. Furthermore, Marks stated that it wasn’t the competing demands within a role that led to role strain, rather it was role imbalance, and that no role strain would occur when all commitments had equal positive or equal negative
values. “Participation in multiple roles provides a greater number of opportunities and resources to the individual to promote growth and better functioning in other life demands” (Grzywacz & Marks, 2000b, p. 112). Role accumulation, or participation in multiple roles can produce beneficial outcomes for individuals, especially when the roles are meaningful and satisfying (Greenhaus & Powell, 2006). For example; an employee who has a supportive partner at home is more able to recover from stressors in the workplace by being able to debrief and discuss difficult workplace issues (Kinnunen et al., 2006). Similarly, skills learned in the workplace, such as time management, may assist with making the non-work environment run smoothly.

**Work-life balance.**

There is no general consensus or consistency on the definition of the construct *work-life balance* (Carlson et al., 2009; McMillan et al., 2011). Balance is an elusive concept with researchers offering differing perspectives. The word *balance* may be problematic, as it conveys a variety of meanings (Guest, 2002). For example, a “measuring scale is balanced when there are equal weights on both sides of the fulcrum” (Greenhaus et al., 2003, p. 512). Balance also has both a physical and psychological meaning, and can be both objective and subjective (Guest, 2002). From a physical perspective, the metaphor of *balancing* time suggests that time is finite, and that time spent in one domain means a sacrifice of time in another domain (Thompson & Bunderson, 2001). On the other hand, the psychological perspective suggests that the integration of work and non-work can be a positive or negative experience in which individuals can be fully engaged or fully disengaged (Greenhaus et al., 2003). Work-family/life balance, at its simplest, is viewed as the opposite of work-family/life conflict (Frone, 2003). Other definitions of the term work-family/life balance include “the absence of work-family conflict” (Grzywacz &
Carlson, 2007, p. 457), “equally engaged in and equally satisfied with work and family roles” (Greenhaus et al., 2003, p.513), “satisfaction and good functioning at work and at home with a minimum of role conflict” (Clark, 2001, p. 349), and “low levels of inter-role conflict and high levels of inter-role facilitation” (Frone, 2003, p. 145).

In a recent review of the construct of work-family life balance, Kalliath and Brough (2008) further exemplified the array of definitions into six broad categories, (a) work-life balance defined as spillover between multiple roles (e.g., the positive and negative spillover that occurs from one role to the other), (b) work-life balance defined as equity across multiple roles (e.g., Greenhaus et al., 2003), (c) work-life balance defined as satisfaction between multiple roles (e.g., “achieving satisfying experiences in all life domains” [Kirchmeyer, 2000, p. 80]), (d) fulfilment of role salience between multiple roles (e.g., it is the importance of each life role to the individual and this varies throughout the life span), (e) the relationship between conflict and facilitation (e.g., Frone, 2003), and (f) perceived control between multiple roles (e.g., Balance is about having control over when, where, and how people work [Fleetwood, 2007]). Kalliath and Brough suggested that measure of work-life balance should be “based on a simple definition that asks employees to rate their current perceptions of balance” (p. 326), and include individual perceptions of current role salience. They offered a definition of balance that integrated perception of balance and role salience which is “the individual perception that work and non-work activities are compatible and promote growth in accordance with an individual’s current life priorities” (Kalliath & Brough, 2008, p. 326),
Current Theoretical Approach

Although most of the research has focused on the antecedents and consequences of work-life conflict, there has been a call for a more balanced approach to the work-life interface by including the positives of multiple role memberships (Frone, 2003; Greenhaus & Powell, 2006; Voydanoff, 2004). In a meta-analysis of the predictors of work-life conflict, Byron (2005) suggested that future research should pay more attention to the benefits that arise from participating in multiple roles, rather than the detriments of doing so. Byron suggested that the assumption that distress occurs at the work-life interface is overly simplistic, and that the focus should be on “determining the conditions that distinguish when multiple roles leads to distress and when multiple roles leads to increased fulfilment” (p. 193). Therefore, examining the antecedents of work-life conflict and work-life enrichment simultaneously paints a richer picture of the whole story; as does understanding how work-life conflict and work-life enrichment influence well-being in the work and non-work domains. I will expand on this in Chapter 4 when the antecedents and consequences of work-life balance will be tested in a full structural model.

Research using Frone’s (2003) definition of work-life balance (i.e., low levels of conflict and high levels of enrichment) has had mixed results. Work-life conflict was negatively related to work-family outcomes (i.e., job and family satisfaction) and enrichment was positively related to the same outcomes (Aryee, Srinivas, & Tan, 2005; Boyar & Mosley Jr., 2007; Wayne et al., 2004). In addition, enrichment has been found to predict work and non-work outcomes above and beyond conflict (van Steenbergen, Ellemers, & Mooijart, 2007). van Steenbergen et al. (2007) found that women were more likely than men to experience enrichment, whereas other research did not find any gender differences (Balmforth & Gardner, 2006), and increased
levels of work-family enrichment have been linked with increased job satisfaction (Aryee et al., 2005; van Steenbergen et al., 2007). Therefore, organisations should consider strategies to increase enrichment, along with strategies to decrease inter-role conflict (van Steenbergen et al., 2007). Workplace cultures that value the family and non-work needs of their employees, and implement strategies to assist their employees achieve work-life balance are more likely to have more productive (Aryee et al., 2005), more satisfied, and more committed employees (McNall, Nicklin, & Masuda, 2010).

There is evidence that work-to-family conflict is reported to a greater extent than family-to-work conflict (Frone, 2003; Kinnunen et al., 2006; O'Driscoll et al., 2006), and work-family enrichment is reported more than family-work enrichment (Kinnunen et al., 2006). In recent meta-analyses (Byron, 2005; Eby et al., 2005), it was found that work domain variables (i.e., work demands, supervisor support) related more strongly to work-family conflict, whereas family domain variables (i.e., family demands, family support) related more strongly to family-work conflict. Similarly, it has been found that workplace resources, such as supervisor support, relate more strongly to work-family enrichment, whereas family resources, such as family support, lead to greater levels of family-work enrichment (Hakanen, Peeters, & Perhoniemi, 2011).

A shortcoming in work-life research is the failure to consider the contribution of the home environment to well-being, such as the support of a partner or family members for work obligations (van Steenbergen, Ellemers, & Mooijaart, 2009). This is especially important for further understanding how enrichment occurs. Supportive work environments have been linked to increased levels of work-family enrichment and job satisfaction (Voydanoff, 2004). van Steenbergen et al. (2009) found that
support from family and friends led to decreased work-life conflict and increased
work-life enrichment. Therefore, resources from the work and non-work
environments increased work-life balance for men and women.

This thesis primarily focuses on the positives of combining work and non-
work roles, though recognising the contribution of the work-life conflict literature to
the work-life interface. Implementing strategies to increase work-life balance will
assist individuals to manage the inter-role conflict that exists.

The theoretical framework for this study will integrate and extend three
complementary theories to better understand the complexity of the work-family
interface: positive organisational scholarship (Cameron et al., 2003), social exchange
theory (Blau, 1964), and conservation of resources theory (Hobfoll, 1989). Positive
organisational scholarship is concerned primarily with the study of positive processes
that facilitate positive outcomes for both the organisation and the individuals who
work there (Cameron et al., 2003). Work-family enrichment clearly fits within the
positive organisational scholarship framework, as organisations that focus on
enriching organisational membership, as well as enriching the work that individuals
do, promote meaningfulness at work (Pratt & Ashforth, 2003; Wayne, Grzywacz,
Carlson, & Kacmar, 2007).

Social exchange theory (Blau, 1964) has become one of the leading paradigms
for understanding workplace interactions and behaviours (Cropanzano & Mitchell,
2005a). One of the basic tenets of social exchange theory is the reciprocity principle,
that social exchange “requires a bi-directional transaction ─ something has to be
given and something returned” (Cropanzano & Mitchell, 2005, p. 875). Conservation
of resources theory (Hobfoll 1989, 2001, 2002) states that individuals are motivated to
acquire and maintain resources in order to deal with the demands of their different
roles. The basic premise of conservation of resources theory is that “people strive to retain, protect and build resources and that what is threatening to them is the potential or actual loss of these valued resources” (Hobfoll, 1989, p. 513). Hobfoll (2002) explains that resources are things that are valued for what they are, such as relationships, health, self-esteem, or they act as a means to obtain important outcomes, such as social support and money (Hobfoll, 2002). The conservation of resources theory posits that those with fewer resources would be more vulnerable to resource loss (loss spirals), and those with more resources are less vulnerable to resource loss; therefore, more able to gain more resources (Hobfoll, 2001). Further explanations of these theories will be given in Chapter 4.

Research Questions: Identifying Gaps in the Work-Life Literature

As noted previously, work-life balance has various definitions, and there has been a lack of sound empirical evidence. The present research will address this by validating a newly developed work-life balance scale, and testing if “balance” is distinct from “conflict” and “enrichment”. The construct validity of this new scale will be empirically assessed in Chapter 3 by examining; the content validity (i.e., identification of items that are expected to measure balance), construct validity (i.e., dimensionality and reliability) and nomological validity (i.e., determine how the balance construct relates to other constructs in a predictable manner).

This research will identify the antecedents and consequences of components of work-life balance, which includes bi-directional constructs of conflict and enrichment (work-to-life and life-to-work) and the new “balance” measure. Chapter 4 will test Frone’s model of work-life balance (i.e., low conflict and high enrichment), and compare alternative models of work-life balance. The results of this study will identify factors from the work and non-work domains that decrease work-life conflict,
increase work-life enrichment, and create a sense of balance for an individual, which then affects their well-being.

A limitation of existing research in the work-life field is that there has been an emphasis on the negative aspect of combining work with non-work roles. Furthermore, there has been a paucity of research that has examined both antecedents and consequences of work-life balance in the same model. This research will address these limitations by (a) including both positive and negative aspects of work-life balance, (b) including antecedents and consequences from both work and non-work domains, and (c) identifying if work-life balance mediates the relationship between support and demand variables, on one hand, with the outcome variables of job and family satisfaction on the other hand.

As work-life research has been dominated by cross-sectional research (but see Hakanen, Peeters, & Perhoniemi, 2011; Lu, 2011), Chapter 5 will investigate longitudinal associations of both the positive and negative sides of work-life interface. This study will examine standard causal effects (cross-lagged), the reverse causal effects, and the reciprocal effects over time that resources from both the workplace and home contribute to work-life balance and job and family satisfaction. A recent longitudinal study examined the associations among family supportive supervisor behaviours, work-family conflict and enrichment, and work related outcomes (Odle-Dusseau, Britt, & Greene-Shortridge, 2012). Odle-Dusseau et al. (2012) suggested that future research should replicate these findings, as they found that family supportive supervisor behaviours led to increased satisfaction through positive experiences of work-family enrichment rather than via a reduction in work-family conflict. The current research will extend and replicate this research by including family support and family satisfaction; therefore, encompassing both domains.
Limitations noted in longitudinal design are that some do not use the same variables at all time points, or do not use the same respondents, and not all studies utilised structural equation modelling (SEM) for testing effects, which is able to estimate different types of causation simultaneously in multi-variable and multi-wave models (de Lange, Taris, Kompier, Houtmans, & Bongers, 2004). Also, there has been an unwillingness to examine reciprocal effects between variables, as most longitudinal research simply replicates the same model at different time points, rather than testing the likelihood that the outcome variable could affect the predictor variable (Taris & Kompier, 2003). This research has addressed these gaps by (a) using a longitudinal design which combines work and non-work domains, (b) including standard causal effects (cross-lagged), reverse causal effects, and reciprocal effects, (c) using SEM, and (d) focussing on the positive aspects of combining work and non-work roles.

Chapter Summary

This chapter gave an overview of past theoretical approaches to work-life balance, including role theory, role balance theory, the scarcity and expansion approaches. Current approaches such as positive organisational scholarship, social exchange theory, and conservation of resources theories were briefly introduced, and will be expanded in later chapters. The meanings and origins of work-life conflict, work-life enrichment, and work-life balance were discussed. Different definitions of work-life balance exist, and there is a lack of empirical evidence in its measurement. The following chapter will assess a recently developed measure of work-life balance, and test if conflict, enrichment, and balance are distinct constructs. Frone’s conceptualisation that work-life balance consists of low levels of work-life conflict and high levels of work-life enrichment will also be assessed.
Chapter 3

Initial Validation of a New Work-Life Balance Measure

This chapter will provide initial validation for the recently developed work-life balance measure (Brough, Kalliath, & O’Driscoll, 2009), based on a recent review of conceptualisations of work-life balance (Kalliath & Brough, 2008). The sample used here is the Time 1 quantitative data (N = 665) from a longitudinal study. The construct validity of the measure was established by assessing factor structure and the relationships with other constructs (i.e., convergent and divergent validity). The expected relationships between the other constructs and work-life balance will be briefly discussed prior to reporting the results, and further expanded in Chapter 4.

As stated in the previous chapter, there are differing definitions of the construct work-life balance, which range from simple definitions, such as being the opposite or absence of work-life conflict to more complex classifications, which include; being equally satisfied with work and family roles. Frone’s (2003) explanation that work-life balance consists of low levels of work-life conflict and high levels of work-life facilitation has been tested and validated by work-life researchers (Aryee et al., 2005; Gareis et al., 2009; Innstrand, Langballe, Falkum, Espnes, & Aasland, 2009; Lu, Siu, Spector, & Shi, 2009; Valcour, 2007). Prior to Frone’s model of work-family balance, most of the research had focussed on negative spillover between work and non-work domains (i.e., work-life conflict), with very little research focusing on the positive spillover (work-life facilitation/enrichment) between the two domains (O’Driscoll et al., 2006). However, there is now strong evidence that spillover between work and family/non-work domains “may have beneficial and reciprocal
effects on one another” (Hanson, Hammer, & Coulten, 2006, p. 249). More details of Frone’s model of work-life balance will be discussed in Chapter 4.

It has been shown that both work-family conflict and work-family enrichment are multi-dimensional constructs that are bi-directional; that is, work-to-family and family-to-work (Carlson, Kacmar, Wayne, & Grzywacz, 2006; Carlson et al., 2000; Frone, 2003). Although related, work-life conflict, work-life enrichment, and work-life balance are distinct constructs, and should be measured independently (Carlson et al., 2009; Polemans, Kalliath, & Brough, 2008). Additionally, in a recent review of the work-life balance construct, Kalliath and Brough (2008) suggested that the term balance would be more easily recognised and understood by a research sample than conflict and facilitation (p. 326).

A criticism of current conceptualisations of work-life balance is that they tend to disregard individual differences in values and interests (Greenhaus & Allen, 2010). As individuals progress through their lives, their work-life balance needs change due to specific life events or priorities (e.g., caring for dependent children or parents, tertiary study, travel, gaining promotion at work; Kalliath & Brough, 2008). Therefore, another pertinent concept in the work-life balance literature is the salience or importance of each role to the individual. Life role priorities, also known as role salience (Noor, 2004), identity salience (Lobel, 1991), role centrality (Kanungo, 1982; Martire, Stephens, & Townsend, 2000), or psychological and personal involvement (Frone, Russell, & Cooper, 1995), are the relative importance or focus that an individual places on a particular role, and which provides them with meaning, self-worth, and purpose (Greenhaus & Allen, 2010). Individuals occupy many roles (Frone, 2003), some of which are more salient to the individual than others (Martire et al., 2000; Noor, 2004).
According to Hakim (2006), women can be classified as work-centred, family-centred or adaptive (both family and work-centred). Greenhaus and Allen (2010) broadened this to include both men and women, and classified them into three similar categories: *career-focused*, *family-focused*, and *career-and-family focused*. Therefore, an individual could feel (Rotondo, Carlson, & Kincaid, 2003) if they were satisfied in the role that was most important to them. Following in this vein of thinking, Greenhaus and Allen (2010) proposed a new definition of work-life balance that incorporated these individual life priorities: “the extent to which effectiveness and satisfaction in work and families’ roles are compatible with an individual’s life values at a given point in time” (p. 17). These life values are not static, but can change across the life course. Therefore, it is important in work-life balance research to measure resources and demands from both the family and workplace, and measure outcome variables from both domains, such as job satisfaction and family satisfaction.

**Existing Work-Life Balance Measures**

There is a limited number of scales available to measure the construct work-life balance that are psychometrically sound (Carlson et al., 2009) and which meet the recommended criteria for construct validity (Kalliath & Brough, 2008). Measures used to date include single-item measures of work-family balance, such as: “How successful do you feel at balancing your paid work and your family life?” (Keene & Quadagno, 2004, p. 6), and, “All and all, to what extent would you say your company helps workers to achieve a balance between their work and family responsibilities?” (Berg, Kalleberg, & Applebaum, 2003, p. 179). Others have used work-life/family balance items developed solely for their research, used data from existing large-scale surveys where the measures had not been psychometrically assessed or validated (Hill et al., 2001; Hill, Martinson, Ferris, & Baker, 2004), or used constructs which
assumed that conflict was the major determinant of work-life balance (Noor, 2003; Pichler, 2009).

Carlson et al. (2009) recently developed a measure of work-family balance that demonstrated that balance was distinct from conflict and enrichment. The current study extends the research by Carlson et al. by testing the initial validity of a work-life balance measure that is more inclusive of all employees (those without family responsibilities), and then testing it in a new theoretical model of work-life balance. The new theoretical research model will examine both the antecedents (work and non-work) and consequences (work and non-work) associated with work-life balance.

The proposed work-life balance scale developed by Brough et al. (2009) seeks to capture two important elements of work-life balance. These are to identify the individual’s current level of work-life balance by utilising the term balance rather than conflict and/or facilitation, and to ascertain the personal importance of their work and non-work domains (Kalliath & Brough, 2008).

**Scale Development**

Kalliath and Brough (2008) conducted a review of existing work-life balance conceptualisations and existing measures and found that existing scales were lacking in validity (see review by Kalliath and Brough in Chapter 1). In 2009, Brough, Kalliath, and O’Driscoll (as part of an international research team working on a cross-national work-life balance project) developed this scale, which was informed by the current work-life balance literature. The items were designed to measure the individual’s current level of perceived work-life balance (e.g., “Overall, I feel my work and non-work life are balanced”), as well as the value and importance of the individual’s current life priority (e.g., “What is the relative importance to you of your work and non-work activities?”). The items were reviewed by the research team, and
met the criteria for inclusion, in accordance with their new definition of work-life balance: “Work-life balance is the individual perception that work and non-work activities are compatible and promote growth in accordance with an individual’s current life priorities” (Kalliath & Brough, 2008, p. 326).

As this work-life balance scale has not yet been reported in the literature, permission to use it in this dissertation was given by the principal author (Brough, via personal communication, 2009).

**Aims and Goals**

The main aim of this study was to empirically validate this new measure of work-life balance. Benson (1998) recommended that validation follows three stages: a substantive stage (items are developed according to theory), a structural stage (assesses dimensionality; i.e., do the variables measure what they purport to measure?), and the external stage (when the construct is compared to other external constructs; i.e., are the relationships in the expected direction?). This final stage, also known as testing the nomological network, builds evidence to test construct and criterion validity.

A second aim of this study was to confirm the discriminant validity of the new “balance” instrument, and to demonstrate that it is a quantitatively distinct construct from work-family conflict and work-family enrichment. This will be done by (a) conducting a confirmatory factor analysis (CFA) to test alternative models, (b) testing if balance, work-family conflict, and work-family enrichment load onto a single latent work-life balance variable, and (c) identify whether the balance variable explains unique variance in well-being, over and above conflict and facilitation.
Method

Participants and Procedure.

Participants were 665 teaching staff from 31 public schools in South-East Queensland, Australia. Teachers were recruited for this study because they have been identified as an occupational group that experiences high levels of occupational stress and decreased well-being (Johnson et al., 2005). There were 470 women (70.7%) and 195 men (29.3%), with ages ranging from 21 to 65 years ($M = 42.57, SD = 9.64$). The majority of participants was married or living in a de facto relationship ($N = 523, 78.6$%), while other participants were either single ($N = 70, 10.5$%), or separated or divorced ($N = 72, 10.9$%). There were 384 participants (57.8%) who indicated that they had dependent children living with them, while 281 (42.2%) reported that they did not have dependent children living with them. The mean age for registered teachers in Queensland, Australia in 2009 was 43.7 years, (Queensland College of Teachers, 2013) and females are well over-represented compared with males (21% male in 2002), suggesting that the profile of teachers recruited to the study was similar to that of Queensland teachers generally.

Almost all the participants had either a university undergraduate ($N = 423, 63.9$%) or postgraduate degree ($N = 217, 32.8$%) as their highest level of education, with a few participants reporting they had completed either school ($N = 10, 1.5$%) or technical college (TAFE; $N = 12, 1.8$%). The majority of participants was employed full-time ($N = 570, 85.8$%), whilst 95 indicated that they were in part-time employment (14.2%). The length of time employed with Education Queensland ranged from one month to 47 years ($M = 14.87$ years, $SD = 10.22$). Participants reported that they worked an average of 43.63 hours per week ($SD = 12.65$), ranging from 9 to 70 hours per week.
The study sample consisted of teaching staff from 31 public schools in South East Queensland. The research project had permission to recruit from schools in one local regional area, and data collection was restricted to this sample, as all of these schools were subject to the same operational policies and procedures. The sample covered a broad range of socio-economic areas, with 15 schools being identified as “rural” and 16 identified as “urban”.

Education Queensland provided contact information for schools in the area. Packages consisting of a self-report questionnaire, information sheet, consent form, and competition form (allowing participants to enter a prize draw) were posted directly to each school principal and were then distributed to all teachers via each school’s internal mail system. Participants were informed that their decision to participate in the study was voluntary and confidential, and that the study adhered to ethical guidelines. Participants were supplied with a reply-paid envelope to ensure that their responses were kept private and confidential and not privy to scrutiny by a third party. A total of 2500 questionnaire packs were sent out to schools who participated, and a total of 665 completed questionnaires were returned, giving an overall response rate of 26.6% (range 8.3% to 53.8%), which is similar to other large-scale surveys of Australian teachers (Walsh, Bridgstock, Farrell, Rassafiani, & Schweitzer, 2008).

Respondents were asked if they would like to receive individual feedback from their responses. Individual feedback was given on a range of scores, which included psychological strain and perception of work-life balance. If the respondents indicated that they wanted to have individual feedback, their scores were collated and sent back to them, along with a self-care health sheet, which gave information on how to reduce
stress and increase levels of work-life balance. Individual feedback was requested by 321 respondents (48.3%).

These data were part of the sample taken from a larger international work-life balance project. Griffith University was funded for the 3-year work-life balance project by the Australian Research Council to examine and report on this construct. The research involved four countries: Australia, New Zealand, China, and Hong Kong. Australia had two sites, Brisbane and Canberra. Each site had a principal investigator, and the Australian and New Zealand sites each had PhD students attached.

As a PhD student at Griffith University, I was involved in the Time 1 and Time 2 data collection of the Brisbane sample. I managed the data sets and wrote organisational reports back to school partners. The current study, and Studies 2 and 3 for this thesis, are based on outcomes for teachers from Education Queensland, in South East Queensland. As the validation of the work-life balance scale has not been published, I will be reporting this in the current study. I will then be testing the work-life balance scale in a new theoretical model of work-life balance, which examines the antecedents and consequences of work-life balance in a population of Australian teachers.

Measures.

Work-life balance.

The 7-item work-life balance scale was developed to measure two hypothesised domains of work-life balance: (a) individuals’ current level of perceived work-life balance (4-items), and (b) the relative importance/salience of work/non-work to the individual (3-items; Brough et al., 2009). Examples of items for perceived work-life balance are: “I currently have a good balance between the time I
spend at work and the time that I have available for non-work activities”, and, “I have difficulty balancing my work and non-work activities”. The latter item is the only one that is reverse scored. Participants were asked to rate their agreement with each statement on a 7-point Likert-type response scale, from 0 (disagree completely) to 6 (agree completely). An example of an item for work-life importance is: “What is the relative importance to you of your work and non-work activities?”, with agreement to be indicated on a 5-point response format, which ranged from 1 (work more than non-work activities), through to 3 (work and non-work activities equally), to 5 (non-work activities more than work). Scores were tallied and higher scores represent higher levels of perceived work-life balance, for the first dimension. Low scores on work-life importance subscale indicate that work is more important than non-work, high scores indicate that non-work is more important than work, whereas mid-range scores identify that work and non-work are equally important for the individual. As this scale has only recently been devised, there are no existing reliability and validity data for it. Internal consistencies for the two subscales were .94 (work-life balance) and .60 (work-life importance).

**Work-life conflict.**

Two directions of work-family conflict, work-to-family conflict and family-to-work conflict were assessed using the Work-Family Conflict Scale developed by Carlson, Kacmar, and Williams (2000). Both work-family conflict and family-work conflict each measure two domains: strain-based work-family conflict, 3-items; time-based work-family conflict, 3-items; strain-based family-work conflict, 3-items; time-based family-work conflict, 3-items. Each 3-item scale was summed to produce a total score, with higher scores for each reflecting more conflict. Examples of the items are: “My work [family] keeps me from my family [work] activities more than I
would like” (time-based); and “Due to stress at home I am often preoccupied with family matters at work” (strain-based). Each item uses a 5-point Likert-type scale, which ranges from 1 (strongly disagree) to 5 (strongly agree). Previously reported internal reliability coefficients (Cronbach’s alpha) for work-family conflict (time-based) was .87, work-family conflict (strain-based) was .86, family-work conflict (time-based) was .86, and family-work conflict (strain-based) was .92 (Rotondo, Carlson, & Kincaid, 2003). Internal reliabilities for the present study were $\alpha = .85$ for work-family conflict (time-based), $\alpha = .86$ for work-family conflict (strain-based), $\alpha = .78$ for family-work conflict (time-based), and $\alpha = .88$ for family-work conflict (strain-based).

**Work-family enrichment.**

Carlson, Kacmar, Wayne, and Grzywacz (2006) developed an 18-item scale that measured (a) three domains of work-to-family enrichment: development, 3-items (e.g., “Work helps me gain knowledge and this helps me to be a better family member”), affect 3-items (e.g., “Work makes me feel happy and this helps me be a better family member”), and capital 3-items (e.g., “Work helps me feel personally fulfilled and this helps me be a better family member”), and (b) three domains of family-to-work enrichment: development 3-items (e.g., “Family helps me gain knowledge and this helps me to be a better worker”), affect 3-items (e.g., “Family puts me in a good mood and this helps me to be a better worker”), and efficiency 3-items (e.g., “Family encourages me to use my work time in a focused manner and this helps me to be a better worker”). Each item uses a 5-point Likert-type scale, which ranges from 1 (strongly disagree) to 5 (strongly agree). The three domains of work-to-family enrichment (e.g., development, affect, and capital) were summed to create a total score for work-family enrichment. Similarly the three domains of family-to-
work enrichment (development, affect, and efficiency) were summed to create a total score for family-work enrichment. Reported internal consistency for the total work-to-family enrichment items was .94, and for the total family-to-work enrichment items was .95 (Michel & Clark, 2009). Validity of this scale was established by use of CFA to assess convergent and divergent validity, as well as to assess the relationships this scale had with other work and family correlates (Carlson et al., 2006). Internal consistency for the present study as reported by Cronbach’s alpha are .92 for work-family enrichment and .88 for family-work enrichment.

**Job and family satisfaction.**

Job satisfaction was assessed using a 3-item subscale from the Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins, & Klesh, 1979). This scale provides an overall indication of the employee’s affective response to their job. Items were, “In general, I like working here”, “All in all I am satisfied with my job”, and, “In general, I don’t like my job”, which was reversed scored. Respondents indicate how much they agreed with each item on a 5-point Likert scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). A high score indicated a high level of job satisfaction. A meta-analysis was conducted on the construct validity of the scale, and it was found to be a reliable and valid measure of job satisfaction (Bowling & Hammond, 2008). The scale was tested within a nomological network, and its relationships with other variables were consistent with the hypothesised directions (Bowling & Hammond, 2008).

Family satisfaction was measured by a 3-item instrument (Edwards & Rothbard, 1999). Items were, “In general, I am satisfied with my family life”, “All in all, the family/home life I have is great”, and “My family life is enjoyable”. Respondents indicated how much they agreed with each item on a 7-point Likert
scale, ranging from 1 (strongly disagree) to 7 (strongly agree). A high score indicated a high level of family satisfaction. Both the job satisfaction and family satisfaction scales were utilised by Lapierre et al. (2008) in a five sample, cross-national study. These authors reported high levels of internal consistency (Cronbach’s alpha) of between .84 to .90 for job satisfaction, and between .92 and .96 for family satisfaction. Lapierre et al. conducted a CFA of all the variables utilised in their study and found that both job and family satisfaction displayed discriminant validity. Internal consistency in the current study is $\alpha = .83$ for job satisfaction and $\alpha = .95$ for family satisfaction.

Data analysis.

The procedure for data analysis was first to test the factor structure of the Work-Life Balance scale using confirmatory factor analysis (CFA). Using a CFA was appropriate as the factors for the work-life balance measure were identified a priori and based on theory. Second, in order to test the premise that work-life balance was a distinct, albeit a related construct, to both work-to-family conflict (and family-to-work conflict) and work-to-family enrichment (and family-to-work enrichment), two alternative models were tested. The first model (Model 1) assumed that all variables (work-life balance, work/family conflict, work/family enrichment) loaded onto one factor, and the second model (Model 2) assumed that all variables loaded onto their hypothesised factors. Third, to further assess the construct validity of the Work-Life Balance Scale, bivariate correlations were assessed between the Work-Life Balance Scale and work-to-family conflict, work-to-family enrichment, job satisfaction, family satisfaction, and gender.
**Results**

**Data screening.**

Prior to conducting any analyses, the overall data set was examined for accuracy of data entry and missing data. Data cleaning ensured that all values entered were correct. Missing data are generally characterised as: missing at random (MAR), missing completely at random (MCAR), and missing not at random and non-ignorable (MNAR; Tabachnick & Fidell, 2007). A missing values analysis procedure was run in SPSS to determine patterns of missing data. In the present study, no cases had missing values greater than 5%. Twenty-one cases were identified as having missing completely at random, and Estimated Mean Substitution was used for imputing missing data (Tabachnick & Fidell, 2007).

Data from the sample were examined for multicolinearity, outliers, and normality (both univariate and multivariate). There was no evidence of either bivariate or multivariate multicolinearity. Normality of all research variables was assessed by obtaining skewness and kurtosis values, as well as examining the shape of the frequency histogram, expected normal probability plots, and detrended expected normal probability plots. All variables met the assumption of normality. A review of the Boxplots identified some outliers. However, in order to identify if these outliers were problematic, the value of the 5% trimmed mean was compared to the value of the mean of each variable (Pallant, 2007). If the trimmed mean and mean values are very different, then the outlying cases would need to be further examined. However, as the values of these two means were similar for all variables examined, it was deemed that the outliers were not problematic and were retained in further analyses.
Confirmatory Factor Analysis.

Confirmatory factor analysis (CFA) is a hypothesis testing technique, which allows comparison of the hypothesised (2-factor) and alternative structural models (1-factor) to determine a model that best explains the data set. In order to assess the underlying factor structure of the Work-Life Balance scale, the data were subjected to CFA factor analysis using Maximum Likelihood Estimation available within AMOS 18 software (Arbuckle, 2010). Based on strong theoretical and empirical research, CFA has been described as a more sophisticated technique for evaluation underlying measurement models (Gerbing & Hamilton, 1996). Although good model fit can be indicated by a non-significant chi-square, in practice, other factors can influence this figure, and, therefore, a range of fit statistics was assessed. In reporting CFA or structural equation modelling, it has been recommended to report the chi-square statistic (with corresponding degrees of freedom and level of significance; Worthington & Whittaker, 2006). As the chi-square statistic often tends to be inflated in large samples (Kline, 2005), the chi-square to degrees of freedom ratio was also included ($\chi^2/df$; Byrne, 2010).

Kline (2005) also recommended reporting at least three other fit indices: (a) Root Mean-Square Error of Approximation (RMSEA; Steiger & Lind, 1980) including corresponding 90% confidence intervals; (b) the Comparative Fit Index (CFI; Bentler, 1990); and (c) the Standardised Root Mean-Square Residual (SRMR; Bentler, 1995). For the RMSEA, values are required to be .05 or lower to indicate a good fit, and values between .05 and .08 indicate reasonable fit (McDonald & Ho, 2002). For the CFI, values less than .90 indicate lack of fit, values between .90 and .95 indicate a reasonable fit and values between .95 and 1.00 indicate a good fit (Tabachnick & Fidell, 2007).
Hu and Bentler (1999) proposed presenting a 2-index strategy, which included the SRMR and supplementing it with either the Tucker-Lewis Index (TLI; Tucker & Lewis, 1973), the CFI, or the RMSEA. This 2-index strategy was utilised in the current study for the reason that the SRMR is most sensitive to models with mis-specified factor covariance(s) or latent structures, whereas the TLI, CFI, and RMSEA are most sensitive to mis-specified factor loadings (Hu & Bentler, 1999, p. 4). A cut-off value close to .08 is recommended for the SRMR (Hu & Bentler, 1999). As the TLI has been found to be consistently independent of sample size (Marsh, Balla, & McDonald, 1988), it was included. A cut-off value close to .95 for the TLI is recommended (Hu & Bentler, 1999).

It is considered best practice to test for multiple models in any CFA or structural equation modelling testing, because multiple models might fit the same data (Thompson, 2004). Therefore, the preferred model will be the model with the best fit, thus building the argument that it is the strongest model. Initially, two alternative models (Model 1 and Model 2) were investigated. The first model tested using CFA was a 1-factor solution (Model 1), which assumed that the seven items of the Work-Life Balance Scale loaded onto a single composite work-life balance latent variable (see Figure 3.1).
The second model tested was the hypothesised 2-factor model (Model 2; see Figure 3.2), which allowed items 1 to 4 to load freely onto a single latent factor of work-life balance, items 5 to 7 to load freely on a single latent factor of work importance, and the correlation between the two factors to be freely estimated.
Model 1, with all seven items from the Work-Life Balance Scale loading onto one factor produced a poor fit to the data (see Table 3.1), as did Model 2, with four items loading on a work-life balance latent variable, and three items loading on a work-life importance latent variable. As the two models did not fit the data well, a model refinement process was conducted using the modification indices function available in AMOS: inspection of the standardised regression weights and inspection of the standardised residuals covariance matrix (the residuals specifically identify the elements in the matrix which the model is not able to explain adequately) was used to guide model improvements (Cunningham, 2008).
Table 3.1

*Goodness of Fit Statistics for Confirmatory Factor Analysis of Work-Life Balance Measure (N = 665)*

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$/df</th>
<th>SRMR</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA (90% CI)</th>
<th>RMSEA (90% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(M1) One factor 7-items</td>
<td>19.84</td>
<td>.11</td>
<td>.92</td>
<td>.87</td>
<td>.17</td>
<td>.15 - .19</td>
</tr>
<tr>
<td>($\chi^2 = 277.69; df = 14, p &lt; .001$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(M2) Two factor 7-items</td>
<td>10.02</td>
<td>.08</td>
<td>.96</td>
<td>.94</td>
<td>.12</td>
<td>.10 - .14</td>
</tr>
<tr>
<td>($\chi^2 = 277.69; df = 14, p &lt; .001$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(M3) One factor 4-items</td>
<td>11.34</td>
<td>.01</td>
<td>.99</td>
<td>.98</td>
<td>.13</td>
<td>.08 - .17</td>
</tr>
<tr>
<td>($\chi^2 = 22.67; df = 2, p &lt; .001$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(M4) One factor</td>
<td>.87</td>
<td>.00</td>
<td>1.00</td>
<td>1.00</td>
<td>.00</td>
<td>.00 - 1.00</td>
</tr>
<tr>
<td>Item 1 &amp; 2 co-vary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>($\chi^2 = .89; df = 1, p = .35$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* CFI = comparative fit index; RMSEA = root mean square error of approximation; SRMR = standardised root mean square residual; TLI = tucker-lewis index; AIC = akaike’s information criterion. Factor loadings for M1 ranged form .06 to .96; factor loadings for M2 ranged from .78 to .96 (work-life balance) and .20 to .94 (work-life importance).

**Model refinement.**

Although the eigenvalues indicated that the model accounted for two factors, inspection of the sample correlation matrix revealed low correlations among Items 5, 6, and 7 in the work-life importance factor (.18 to .45). Correlations among Items 1 to 4 in the work-life balance factor were adequate and ranged from .73 to .90.

Examination of the standardised residuals covariance matrix revealed that shared variance between Item 5 and Item 7 was 6.91. With a well-fitting model, standardised residuals should be less than two in absolute value. This indicated that the model
failed to account for much of the shared variance between these particular item pairs. The modification indices indicated that there was a large discrepancy between the error terms of Item 5 and Item 7 (MI = 68.19), and the standardised regression weights for Item 5 (.48) and Item 7 (.20) were not acceptable (Byrne, 2010). Based upon the standardised residuals, the modification indices, and the standardised regression weights, it was deemed that Item 5 and Item 7 were problematic.

This subscale was then re-examined to identify item wording or theoretical issues associated with these items. First, the wording of the questions may have been difficult to understand, as the language was potentially confusing. The questions asked the respondent to rate the importance, prominence, or value received from either their work or non-work (or both). Thus, these questions may have been assessing different constructs. For example, a person’s family or non-work life may be more important to them than their work-life, but with their current life circumstances (e.g., having young dependent children), they may have had to work long hours because their partner had to work part-time because of the dependent needs of the family; that is, work may be important in their life at the moment, but they may receive more value (e.g., self esteem, satisfaction) from their family.

As the work-life importance subscale had proven problematic, the analysis was re-run using only the first four items of the work-life balance scale (Model 3). The modification indices indicated that the error variances of Item 1 and Item 2 should be correlated. Generally, in classical statistics it is assumed that measurement error variances are random and, therefore, independent. However, there are instances when measurement errors are systematic and have common characteristics. Bollen (2000) stated that, “Correlated errors due to similar question wording or overlapping content are not that unusual” (p. 77). In this case, Item 1, “I currently have a good balance
between the time I spend at work and the time that I have available for non-work activities”, and Item 2, “I have difficulty balancing my work and non-work activities”, have overlapping content, specifically the wording of “activities”. Incorporating correlated errors of measurement allows the model to have more flexibility rather than relying on restrictive factor analysis approaches that ignore alternative options (Bollen, 2000). Therefore, Model 4 was tested allowing these error terms to correlate (See Figure 3.3). The fit statistics reported in Table 3.1 suggested that Model 4 was the best fitting model. Thus, Model 4 was accepted and was named the Work-Life Balance Scale. The Work-Life Balance Scale clearly held together as a single factor, whereas the work-life importance items did not.

Figure 3.3. Model 4: best fitting model for Work-Life Balance Scale

Differentiating Conflict, Enrichment, and Balance

Discriminant validity.

In order to test if work-life balance was a distinct construct from work-family conflict and work-family enrichment, two further latent variable models were assessed. The first model (Model 1) assumed that all items, work-life balance, work-
family conflict (time- and strain-based), family-work conflict (time- and strain-based),
work-family enrichment, and family-work enrichment loaded onto one factor. The
second model (Model 2) assumed that all items loaded onto their hypothesised
factors. The variables included in Model 2 were work-life balance (4 items), work-to-
family conflict time-based (3 items), work-to-family conflict strain-based (3 items),
family-to-work conflict time-based (3 items), family-to-work conflict strain-based (3
items), work-to-family enrichment (9 items), and family to work enrichment (9
items). When these models were tested, the fit for Model 1 was not acceptable (see
Table 3.2). However, the fit for Model 2 reflected the data quite well. In Model 2, all
items loaded onto their respective latent variable, and the modification indices
suggested no evidence of strong cross-loading or misspecification (see Table 3.2 and
Figure 3.4).

Means, standard deviations, zero-order correlations and correlations among the
latent variables are displayed in Table 3.3. This analysis demonstrated internal
factorial integrity for all scales as well as factorial independence among the scales.
### Table 3.2

*Goodness of Fit Statistics for Confirmatory Factor Analysis of Work-Life Balance, Work-Family Conflict, Work-Family Enrichment (N = 665)*

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2/df$</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
<th>RMSEA (90% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(M1) One factor</td>
<td>23.64</td>
<td>.30</td>
<td>.26</td>
<td>.19</td>
<td>.18 - .19</td>
</tr>
<tr>
<td>((\chi^2 = 12453.76; df = 527, p &lt; .001))</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(M2) Separate factors</td>
<td>2.33</td>
<td>.96</td>
<td>.96</td>
<td>.05</td>
<td>.04 - .05</td>
</tr>
<tr>
<td>((\chi^2 = 1177.41; df = 505, p &lt; .001))</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* CFI = comparative fit index; RMSEA = root mean square error of approximation; TLI = tucker-lewis index.
Figure 3.4. Model 2: all items load onto their respective latent variables. Factor loadings for work-life balance items range .78 to .95; factor loadings for work-family conflict (strain) range from .80 to .90; for work-family conflict (time) .76 to .88; for family-work conflict (strain) .80 to .93; for family-work conflict (time) .73 to .78; for work-family enrichment .53 to .87 and for family-work enrichment .48 to 92.
Table 3.3

Means, Standard Deviations, Zero-Order Correlations (below diagonal), and Correlations among Latent Variables (above diagonal); (N = 665)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Balance</td>
<td>.05</td>
<td>1</td>
<td>-.73***</td>
<td>-.64***</td>
<td>-.14**</td>
<td>-.06</td>
<td>.40***</td>
<td>.08</td>
<td>.40***</td>
<td>.25***</td>
<td>3.02</td>
<td>1.48</td>
</tr>
<tr>
<td>3. Work-family conflict (time)</td>
<td>.03</td>
<td>-.68***</td>
<td>1</td>
<td>.67***</td>
<td>.23***</td>
<td>.10*</td>
<td>-.11*</td>
<td>-.04</td>
<td>-.33***</td>
<td>-.09*</td>
<td>3.30</td>
<td>1.48</td>
</tr>
<tr>
<td>4. Work-family conflict (strain)</td>
<td>.07</td>
<td>-.61***</td>
<td>.60***</td>
<td>1</td>
<td>.22***</td>
<td>.21***</td>
<td>-.48***</td>
<td>-.13**</td>
<td>-.47***</td>
<td>-.23***</td>
<td>3.30</td>
<td>1.00</td>
</tr>
<tr>
<td>5. Family-work conflict (time)</td>
<td>.04</td>
<td>-.14***</td>
<td>.21***</td>
<td>.21***</td>
<td>1</td>
<td>.54***</td>
<td>-.11*</td>
<td>-.02</td>
<td>-.21***</td>
<td>-.11*</td>
<td>2.40</td>
<td>.87</td>
</tr>
<tr>
<td>6. Family-work conflict (strain)</td>
<td>-.14***</td>
<td>-.06</td>
<td>.10*</td>
<td>.19***</td>
<td>.47***</td>
<td>1</td>
<td>-.11*</td>
<td>-.27***</td>
<td>-.12**</td>
<td>-.34***</td>
<td>1.97</td>
<td>.80</td>
</tr>
<tr>
<td>7. Work-family enrichment</td>
<td>.15***</td>
<td>.35***</td>
<td>-.29***</td>
<td>-.40***</td>
<td>-.11**</td>
<td>-.11**</td>
<td>1</td>
<td>.24***</td>
<td>.67***</td>
<td>.15***</td>
<td>3.44</td>
<td>.73</td>
</tr>
<tr>
<td>8. Family-work enrichment</td>
<td>.08*</td>
<td>.09*</td>
<td>-.07</td>
<td>-.13**</td>
<td>.02</td>
<td>-.19***</td>
<td>.40***</td>
<td>1</td>
<td>.15***</td>
<td>.40***</td>
<td>3.88</td>
<td>.62</td>
</tr>
<tr>
<td>9. Job satisfaction</td>
<td>.05</td>
<td>.36***</td>
<td>-.27***</td>
<td>-.41***</td>
<td>-.17**</td>
<td>-.10**</td>
<td>.63***</td>
<td>.21***</td>
<td>1</td>
<td>.16***</td>
<td>3.99</td>
<td>.86</td>
</tr>
<tr>
<td>10. Family satisfaction</td>
<td>.01</td>
<td>.24***</td>
<td>-.08</td>
<td>-.20***</td>
<td>-.09*</td>
<td>-.33***</td>
<td>.17***</td>
<td>.34***</td>
<td>.13**</td>
<td>1</td>
<td>5.85</td>
<td>1.39</td>
</tr>
</tbody>
</table>

Note: * = p < .05, ** = p < .01, *** = p < .001
**Construct validity.**

To further establish construct validity of the Work-Life Balance Scale, bivariate correlations were examined between this variable and work-to-family conflict (time-based), work-to-family conflict (strain-based), family-to-work conflict (time-based), family-to-work conflict (strain-based), work-to-family enrichment, family-to-work enrichment, job satisfaction, family satisfaction, and gender (see Table 3.3). It was expected that work-life balance would be associated positively with work-family enrichment and family-work enrichment as higher levels of enrichment should be reflected in higher levels of balance, and that balance would be associated negatively with work-family conflict (time- and strain-based) and family-work conflict (time- and strain-based), as conflict should reflect lower perception of balance (Carlson et al., 2009; Frone, 2003). Work-life balance was associated in expected direction with work-family enrichment ($r = .35$), and to a lesser extent with family-work enrichment ($r = .09$), albeit significant. Work-life balance was associated in expected direction with all conflict variables, although the relation with family-work conflict (strain-based) was not significant. The associations between work-life balance and work-family conflict (time- and strain-based: $r = -.68$, $r = -.61$) were strongly negative, whereas the relation between work-life balance and the family-work conflict variables were much smaller ($r = -.06$ and $r = -.14$).

It was expected that higher levels of work-life balance would be associated with increased levels of job satisfaction and family satisfaction (Boyar & Mosley Jr., 2007; Carlson et al., 2009) and that work-life balance would be equally important for both women and men, as suggested by Sturges and Guest (2004). These associations between work-life balance and job satisfaction and family satisfaction were positive significant, and in the expected direction, and there was no significant association
between gender and work-life balance. These correlational analyses support the construct validity of the work-life balance scale, as the scale was linked to other constructs and a “real world” variable (i.e., gender) in the manner expected (Sturges & Guest, 2004).

**Latent work-life balance variable**

The work-life balance scale that has been validated in this study will be renamed the *Balance Scale* from this point forth, so as not to cause any confusion with the generic term *work-life balance*. Three alternative models were examined to test the latent structure of work-life balance. First, I tested to see if Frone’s model of work-life balance (Model 1; see Figure 3.5), loaded onto a latent work-life balance variable. This model assumed that work-family enrichment (9-items), family-work enrichment (9-items), work-family conflict (time-based and strain based: 3-items each), and family-work conflict (time-based and strain based; 3-items each) loaded onto a single latent work-life balance variable. Second, I tested the alternative work-life balance model (Model 2; see Figure 3.6), which assumed that Frone’s model plus the new 4-item Balance Scale loaded onto a latent work-life balance variable. The final model I tested had all the items/variables of the alternative work-life balance model, plus one item from the work importance subscale (Model 3; see Figure 3.7). There was only one item from the original work-life importance subscale that performed adequately when subjected to confirmatory factor analysis; therefore, this item was chosen for inclusion in this model. This item has been included to explore whether work-life importance or salience contributes to work-life balance. See Table 3.4 for results of these analyses.
Figure 3.5. Model 1: Frone’s (2003) model of work-life balance.
Figure 3.6. Model 2: alternative work-life balance model (including balance items).
Figure 3.7. Model 3: all items plus work-life importance.
Table 3.4.

*Goodness of Fit Statistics for Frone’s Model of Work-Life Balance plus the two Alternative Work-life Balance Models (N = 665)*

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$/df</th>
<th>SRMR</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
<th>RMSEA (90% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(M1) Frones’s WLB</td>
<td>2.27</td>
<td>.08</td>
<td>.97</td>
<td>.96</td>
<td>.04</td>
<td>.04 - .05</td>
</tr>
<tr>
<td>($\chi^2 = 867.25; df = 382, p &lt; .001$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(M2) Alternative WLB</td>
<td>2.18</td>
<td>.08</td>
<td>.97</td>
<td>.96</td>
<td>.04</td>
<td>.04 - .05</td>
</tr>
<tr>
<td>($\chi^2 = 1093.37; df = 502, p &lt; .001$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(M3) Alternative/ salience</td>
<td>2.15</td>
<td>.07</td>
<td>.97</td>
<td>.96</td>
<td>.04</td>
<td>.04 - .05</td>
</tr>
<tr>
<td>($\chi^2 = 1143.75; df = 532, p &lt; .001$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. WLB = latent work-life balance variable; SRMR = standardised root mean-square residual CFI = comparative fit index; RMSEA = root mean square error of approximation; TLI = tucker-lewis index*

The results of this analysis showed that the three models fit the data quite well.

The Balance Scale ($\beta = .82$) contributed the second highest amount of variance to the latent work-life balance variable in Model 2 (see Figure 3.6) after the work-life conflict time-based variable ($\beta = -.86$), whereas, the variables originating in the family domain, such as; family-work conflict strain-based and family-work enrichment contributed much less ($\beta = -.11$) and ($\beta = .10$), respectively. The addition of the one item salience variable in Model 3 also made a significant contribution ($\beta = .41$) to the latent work-life balance variable (see Figure 3.6). Although these findings demonstrated that salience does contribute significantly to work-life balance, the use of a one item scale is not very robust and such practice is generally viewed as suboptimal (Little, Cunningham, Shahar, & Widaman, 2002). Therefore this item was
not used in further analyses. However, both Model 1 and Model 2 will be further tested within a full structural model in Study 2.

Discussion

The main aim of this study was to provide initial empirical validation of a new measure of work-life balance. The items were developed by an expert panel of researchers and based on current theoretical conceptualisation of work-life balance (see review; Kalliath & Brough, 2008). Although the research team originally conceptualised that this scale would consist of two separate sub-scales of perceived work-life balance and work-life salience or importance, only the first dimension, work-life balance, was retained as an intact, psychometrically sound measure. The results of this study found that the final 4-item Balance Scale was a good fit to the data, as demonstrated by confirmatory factor analysis. This one-factor model measured a unifactorial construct of work-life balance, and was found to have preliminary convergent and discriminant validity.

The second dimension, importance/salience, was found to be lacking psychometrically. There are several reasons why this may have occurred. First, the wording of the items of the work-life importance/salience sub-scale may have been confusing to the respondents. Therefore, it may be advisable to return to Benson’s (1998) substantive stage, which would mean re-examining the item development phase, in particular, reconsidering the suitability of the two dimensions proposed by Brough et al. (2009), and reconsidering the wording of the items. First, work-life balance and work-life importance/salience may be two completely distinct constructs that belong in separate, discrete scales, and which do not load on a higher order work-life balance factor (Clark & Watson, 1995). Third, the item response format should have been similar, with both subscales measured on the same Likert-response format.
This would have allowed for a more robust assessment of the relationship between the two sub-domains by removing response format as a possible artefact.

Although the work-life importance/salience subscale did not fit the data well in conjunction with the work-life balance construct, or fit the data well as a stand-alone scale, individual work-life priorities should not be disregarded (Greenhaus & Allen, 2010). Work-life importance and individual differences in values and interests need to be accounted for. For some individuals, their career may be very important to them; therefore, they are happy to work long hours, whereas, another individual may feel that family is the most important aspect of their life and are happy to work part-time or find a job that pays the bills. Further work on devising a scale to measure the importance of various roles to the individual may need to be developed. On the other hand, as suggested by role balance theory (Marks & MacDermid, 1996), it may be better to view how individuals manage their total role system rather than focusing on specific roles’, such as the work role or family role. Therefore, an individual would have either a positive or negative role balance across all their roles, and the importance of each role is subsumed by the whole. This also lends support to ecological systems approach (Bronfenbrenner, 1992), which recognises inter-relatedness between components of different systems, especially the dominant spheres of work, family, and life (Hammer et al., 2003).

The second aim of this study was to demonstrate that work-life balance was quantitatively distinct from work-family conflict and work-family enrichment. Although there was a moderate correlation between work-life balance and work-family conflict, they were shown to be two distinct constructs. Researchers have tended to use work-life conflict and work-life balance interchangeably (Carlson et al., 2009), or have assumed that low levels (or the absence) of work-family conflict and
the presence of work-family facilitation corresponds to work-life balance (Frone, 2003). However, as demonstrated in this study, balance, work-life enrichment, and work-life conflict are conceptually distinct, and therefore, may have different antecedents and consequences. The antecedents and consequences of conflict, enrichment and balance will be examined in Chapter 4. The new Balance Scale will be further tested for validity in Chapter 5, when longitudinal data will be used.

In conclusion, this study addressed a gap in the work-life balance literature by identifying a simple measure, which addressed the individual’s perception of work-life balance. This study has extended previous measurement development of work-life balance, which has been a challenging construct to conceptualise due to the various definitions that researchers have utilised. Previous measures have been either a single-item or measured work-family balance, and excluded individuals who were single, or who did not have dependent family members. The work/non-work construct offers a more inclusive approach of studying perceived balance (Hayman, 2005).
Chapter 4

Study 2: Testing a New Model of Work-Life Balance

This chapter will further explore the components of work-life balance in a full structural model. The components that will be tested are work-family conflict (both work-to-family and family-to-work), work-family enrichment (both work-to-family and family-to-work), and the balance variable (from Chapter 3). Three alternative models of work-life balance will be tested via structural equation modelling (including Frone’s four-fold taxonomy of work-life balance), using the same sample of teachers as used in Study 1 ($N = 665$). It is expected that the various dimensions of work-life balance will have different relationships between the antecedent and outcome variables. Antecedents that will be examined include demand variables from both the workplace and family domains (e.g., hours worked, organisational time expectations, work demands, family demands, negative career consequences) as well as workplace and family resources (e.g., supervisor support, colleague support, family support, organisational support). The consequences of work-life balance that will be investigated in this study are job satisfaction and family satisfaction. This study also examined whether the components of work-life balance would function as mediators between the demands and resources of work and family and job and family satisfaction.

As noted in Chapter 3, work-life balance, as a concept, is both elusive and multi-faceted. It has been demonstrated that conflict, enrichment, and balance are distinct concepts, which may have different antecedents and consequences. Work-life research can no longer ignore the beneficial and reciprocal effects that the work and family domains may have on each other (Greenhaus & Powell, 2006; Grzywacz & Carlson, 2007).
For the purposes of this study, work-family conflict is conceptualised as being bi-directional, and includes both time-based and strain-based conflict for both work and non-work domains. Time-based conflict arises when time spent in either the home or work directly reduces time available for the other role (Greenhaus & Beutell, 1985). Strain-based conflict arises when the strain (i.e., anxiety, depression, tension, fatigue, irritability, or apathy) in one role affects an individual’s performance in the other role (Greenhaus & Beutell, 1985; Premeaux et al., 2007). There is evidence that both work-to-family conflict and family-to-work conflict have different predictors and outcomes (Brough, O'Driscoll, Kalliath, Cooper, & Poelmans, 2009), with work factors being more strongly related to work-family conflict, and family factors being more strongly linked to family-to-work conflict (Byron, 2005). For example, spending long hours on work-related tasks may lead to increased levels of work-to-family conflict, whereas time spent caring for dependent children or elderly parents may lead to increased levels of family-to-work conflict.

Work-life enrichment, like work-life conflict, is a bi-directional construct, and includes work-to-family and family-to-work enrichment, whereby the combination of multiple roles can have a beneficial and enriching effect on each other (Greenhaus & Powell, 2006; Kinnunen et al., 2006). For example: acquiring problem-solving skills in the workplace may improve family life (Nicklin & McNall, 2012), or the benefits and pleasures of being involved in family life may create a positive mood, which spills over to the work domain (Kirchmeyer, 1992). Another example of non-work to work enrichment is that of a surf-lifesaver, who can transfer their ability to cope with a stressful situation in their non-work domain to handling stressful situations at work (Allis & O'Driscoll, 2008).
Conflict and enrichment are distinct concepts that can be experienced simultaneously by an individual and have different antecedents and consequences (Carlson et al., 2006; Hanson, Hammer, & Colton, 2006; van Steenbergen et al., 2007). Conflict and enrichment have been viewed as linking mechanisms between work and family domains, and have been focused predominantly at the individual level (Carlson et al., 2009). Work-life balance, on the other hand, can be viewed as a more global concept with higher levels of work-life balance indicating a more positive state of affairs, whilst lower levels of work-life balance would signal a negative state of affairs.

Models of Work-Life Balance

In 2003, Frone conducted a review of existing work-balance literature, and suggested that a comprehensive model of work-life balance should include components of both conflict and enrichment. Frone (2003) proposed a four-fold taxonomy of work-family balance (see Figure 4.1), which included two primary dimensions: the direction of influence between work and family (work-to-family versus family-to-work) and the type of effect (conflict versus facilitation). The arrows in Figure 4.1 reflect Frone’s definition that “low levels of interrole conflict and high levels of interrole enrichment represent work-family balance” (Frone, 2003, p. 145).
Following on from Frone’s influential paper, Ayree et al. (2005) conducted a study to examine the antecedents and outcomes of the four-fold taxonomy of work-family balance with a sample of 267 employed parents from various occupations in India. They used confirmatory factor analyses to compare Frone’s four-factor model (work-family conflict, family-work conflict, work-family enrichment, and family-work enrichment) with other plausible alternative models (one factor and two factor models). The chi-square difference test revealed that the hypothesised four factor model fit the data significantly better than the alternative models. The results from Study 1 are consistent with these findings. More recently, Lu, Siu, Spector, and Shi (2010) conducted a study with 189 employed parents in mainland China and found support for the four-fold taxonomy of work-family balance. Both Ayree et al. and Lu et al. found evidence that the conflict and enrichment components of work-life balance were distinct and that each had different associations with antecedents and outcomes variables.
Grzywacz and Carlson (2007) agreed that the “component approach” (p.406) to work-life balance based on Frone’s (2003) four-fold taxonomy was compelling, as it provided useful indicators of an individual’s perception of work-life balance. Grzywacz and Carlson confirmed that well validated comprehensive measures of work-family conflict (Carlson, Kacmar, & Williams, 2000) and work-family enrichment (Carlson, Kacmar, Wayne, & Grzywacz, 2006) exist, and these measures encapsulate the bi-directionality of the work-life interface (i.e., work to family and family to work). To illustrate support for the component approach, they analysed data from the 1997 National Study of Changing Workforce (Bond, Galinsky, & Swanberg, 1998, as cited in Grzywacz & Carlson, 2007). Grzywacz and Carlson used Frone’s (2003) four components of work-life balance, as well as a single item balance measure, to test the association these had with both work outcomes and family outcomes. The results indicated the four components explained considerably more of the variance in the outcome variables than the single item of balance alone.

Following the work of Grzywacz and Carlson (2007), Carlson, Grzywacz, and Zivnuska (2009) developed and tested a separate six item measure of work-family balance, together with measures of conflict and facilitation. Carlson et al. (2009) demonstrated that their work-family balance construct was distinct from conflict and enrichment, and that balance explained additional variance on several key work and family outcomes, such as job satisfaction and family satisfaction. However, each of the work-family balance items that Carlson et al. used measured the extent to which an individual met their role expectations from the perspective of an external person, rather than the from the perspective of the individual. Examples of items included in the six item measure are; “My co-workers and family would say that I am meeting their expectations”, and “People close to me would say that I do a good job of
balancing work and family” (Carlson et al., 2009, p. 1483). By contrast, the work-family conflict scale (Carlson et al., 2000) and work-family enrichment scale (Carlson et al., 2006) used in Carlson et al. (2009) study provided evidence of conflict and enrichment from the individual’s perspective. The findings from Study 1, in the present research, provided evidence for the four components of work-life balance plus the newly developed balance scale, which was an improvement over Calson et al.’s scale because it provided perceptions of balance from the individual’s perspective.

To date, there has been a paucity of studies that have investigated both conflict and enrichment from Frone’s four-fold perspective (Lu et al., 2010). Frone’s (2003) suggestion that achieving work-life balance means a reduction in conflict and an improvement in enrichment has been questioned by some researchers (Greenhaus & Allen, 2010). Conflict and enrichment can occur at the same time, yet still be separate from each other (Boyar & Mosley Jr., 2007; van Steenbergen et al., 2007). For example, working long hours on a project means there is less time to spend with family (work-family conflict); however, when the work is engaging and fulfilling, the employee finds enjoyment and satisfaction in their work and this helps the employee be a better family member (work-family enrichment).

Following on from Grzywacz and Carlson’s work, the present study will include the 4-item measure of balance (from Chapter 3) as the fifth component in the components approach to work-family balance. The inclusion of the Balance Scale complements Frone’s four-fold perspective by identifying the individuals’ global perception of work-life balance across their work and non-work lives. This measures balance across the total role system rather than specific roles, and identifies if work-life balance is perceived as a positive, neutral, or negative experience. This supports Bronfenbrenner’s (1992) ecological systems theory and Marks and MacDermid’s
(1996) role balance theory, which acknowledges the integration and inter-relatedness of all roles. This study will examine antecedents of work-life balance from the work and family domains, as well as work and family outcomes (i.e., job satisfaction and family satisfaction). This will allow me to identify which antecedents lead to both directions of work-life conflict and work-life enrichment (e.g., work-to-family and family-to-work) and to overall balance. Furthermore, this study will ascertain which of the components of work-life balance lead to greater wellbeing via satisfaction in the work and family domains.

**Antecedents of Work-Life Balance**

Antecedents of work-life balance that were examined in this study were divided into: (a) resources, such as supervisor support, colleague support, family support, and a supportive work-family organisational culture, and (b) demands, such as work demands, family demands, long working hours, organisational time expectations, and negative career consequences.

**Antecedent resources that aid work-life balance.**

**Organisational support.**

Support can come from many areas and generally can be classified as formal workplace support (e.g., specific workplace policies, such as flex-time or on-site childcare) or informal workplace support (e.g., understanding supervisor or supportive work-family organisational culture). Thompson, Beauvais, and Lyness (1999) were one of the first to define a supportive work-family culture as “the shared assumptions, beliefs, and values regarding the extent to which an organization supports and values the integration of employees’ work and private lives” (p. 394). Or more generally speaking, a supportive work-family culture is one in which the organisation is perceived to offer support and sensitivity towards employees’ family and non-work
needs (Mauno, Kinnunen, & Pyykko, 2005), which assists employees to balance their work and family lives (Thompson et al., 1999).

A recent meta-analysis by Kossek, Pilcher, Bodner, and Hammer (2011) examined the relationship between four different types of workplace social support and work-family conflict. Kossek et al. (2011) distinguished between general workplace support (e.g., perceived organisational support and supervisor support) and family-specific constructs of support, such as perceived organisational work-family support and supervisor work-family support. General workplace support can come from various sources, such as supervisor, colleagues, or the organisation itself, and is defined as the “degree to which employees perceive that supervisors or employers care about their general well-being on the job through providing positive social interaction and resources” (Kossek et al., 2011, p. 292). Organisational work-family specific support involves the perception that the employer is concerned about their employees’ ability to effectively manage their work and family roles and that the employer “facilitates a helpful social environment by providing direct and indirect work-family resources” (Kossek et al., 2011, p. 293). Furthermore, it has been argued that although having general organisational support is beneficial and can be viewed as a resource, work-family specific support will have a stronger relationship to work-life conflict than general support (Kossek et al., 2011).

Allen (2001) was one of the first researchers to examine the link between general supervisor support and family-supportive organisational perceptions and organisational outcomes, such as work-family conflict, job satisfaction, and intention to turnover. Participants in Allen’s study were 382 women and 138 men recruited from a range of organisations, with an average age of 39.88 years ($SD = 8.85$). Allen hypothesised that family-supportive organisational perceptions would account for
unique variance above and beyond the variance contributed by general supervisor support and formal resources, such as flexible work arrangements (flex-time, compressed work week, onsite childcare). Allen’s results supported this hypothesis: family-supportive organisational perceptions contributed significant variance to work-family conflict, job satisfaction, and intention to turnover, over and above general supervisor support. The associations between family-supportive organisational perceptions and work-family conflict, job satisfaction, and intention to turnover were $r = -.47$, $r = .53$, and $r = -.40$, whereas the relationships between supervisor support and work-family conflict, job satisfaction, and intention to turnover were $r = -.30$, $r = .46$, and $r = -.33$. Employees who perceived that the organisation was supportive of both their work and non-work roles were more likely to experience less work-family conflict and greater job satisfaction.

More recently, Hammer, Kosse, Yragui, Bodner, and Ginger (2009) developed a scale to measure family-supportive supervisor behaviours. Using two samples of lower wage workers (97 males and 262 females) with an average age of 38, Hammer et al. found that family-supportive supervisor behaviours were significantly related to work-family conflict ($r = -.23$), family-work conflict ($r = .04$), work-family positive spillover ($r = .07$), family-work positive spillover ($r = .23$), job satisfaction ($r = .41$), and turnover intentions ($r = -.24$), and these were over and above measures of general supervisor support.

**Supervisor and colleague support.**

Social support at work, specifically supervisor support, can lessen the impact of work-family conflict (Burke, 2006; Hill, 2005; Thomas & Ganster, 1995), and is important for balancing work and family (Jang, 2009). Supervisor support is generally considered to be either instrumental support (e.g., practical assistance,
helpful information, and clear and helpful feedback) or emotional support (e.g., sympathetic understanding and concern; O’Driscoll, Brough, & Kalliath, 2004).

In a recent meta-analytical review of the antecedents of work-family conflict, Michel, Kotrba, Mitchelson, Clark, and Baltes (2011) found that both supervisor support ($N = 10726$) and co-worker support ($N = 6107$) had weak negative relationships with work-family conflict ($r = -0.19$, $r = -0.21$), respectively. This suggests that as social support increases in the workplace, work-family conflict decreases (Michel et al., 2011). Wayne et al. (2007) proposed that social support received from supervisors, co-workers, and family-friendly work environments could lead to more confidence with work, and then this could lead to improved functioning at home (work-family enrichment), which supports the findings by Hill (2005), who found that supervisor support was directly related to work-family enrichment.

**Family support.**

Family support is viewed as a resource, which is likely to promote a positive feeling that assists the employee in the work domain (Wayne, Randel, & Stevens, 2006). Family-based support creates an environment in which family members can coordinate their work and family responsibilities effectively, which assists the family manage their work-life balance (Voydanoff, 2005c). Affective family support has been found to increase levels of family-work enrichment (Grzywacz & Marks, 2000a; Wayne et al., 2006). Like supervisor and co-worker support, family support has two dimensions: instrumental support, such as the amount of practical assistance given in the home, and emotional support, such as emotional understanding and support. Utilising a sample of 167 employees (114 women and 53 men), with an average age of 39.79 years ($SD = 8.98$), Grzywacz and Marks (2000) found support for their proposition that greater levels of emotional family support was associated with greater
family-work enrichment. This suggests that caring and listening to concerns regarding work issues is beneficial (Wayne et al., 2006), and that debriefing with a partner or family member assists the individual manage their work-life balance more effectively.

Family support also has strong links to family-work conflict. O’Driscoll et al. (2004) found support for associations between reduced family support and greater family-work conflict in a longitudinal study involving 415 participants from a range of industries in New Zealand ($r = -.13$ to $-.22$, $p < .05$). Michel et al. (2011) analysed 14 studies ($N = 7413$) and found negative association between family support and family-work conflict ($r = -.09$, $p < .05$). This effect was weak, but it suggests that the greater support that an individual has from the family, the less likely they will experience family-work conflict.

The present study will use a general measure of supervisor support, colleague support, and family support (which includes a combination of instrumental and emotional support), as well as a work-family specific measure of organisational support.

**Demand variables: Antecedent variables that reduce work-life balance.**

**Work demands.**

The past 25 years has seen a dramatic increase in work intensification, unpaid overtime, and expectations for increased employee performance (Brough et al., 2008). Many employees are now working longer hours and have increased responsibilities within their jobs, which creates greater work demands (Boyar & Mosley Jr., 2007). Some jobs have greater demands than others (Saltzstein, Ting, & Saltzstein, 2001). Most researchers have used concepts such as work overload, role overload, and number of hours worked to explain work demand; however, others have stated these
concepts could be considered predictors of work demand and not actually demand as such (Boyar, Carr, Mosley Jr, & Carson, 2007).

Demand has generally been viewed as a negative concept and related to work-family conflict and workplace stress. But this definition is too narrow, as some individuals may find that work demand is a positive experience or have a neutral response to it (Boyar & Mosley Jr., 2007). For example, although an individual may find that their job is demanding, they may love their job and enjoy the challenge. On the other hand, employees who experience high levels of work demand may blame their family responsibilities for interfering with their work, and this may create more family-work conflict (Boyar, Maertz, Pearson, & Keough, 2003). Boyar et al. (2007) found that most measures of demand tended to word their items from a negative perspective; therefore, they developed a measure of work demands that did not have negative undertones, and which addressed individual perceptions of work and family demand specifically, as opposed to measuring role overload.

An individual’s perceptions of work demand may also include the time spent at home completing work tasks (Grotto & Lyness, 2010). Using a sample of 1178 participants (average age was 41, $SD = 11.2$), Grotto and Lyness (2010) found that work demands accounted for 76% of the explained variance in work-family conflict, whereas organisational resources (e.g., supportive workplace culture and supervisor support) accounted for 24% of the variance of work-life conflict.

**Family demands.**

Similar to work demand, family demand has been typically measured as number of hours spent in dependent care (Michel et al., 2009), hours spent on household tasks (Allis & O’Driscoll, 2008; Major, Klein, & Ehrhart, 2002), or number of dependents present (Yang, Chen, Choi, & Zou, 2000). Michel et al. (2009), as part
of their meta-analysis, measured family demands as consisting of a combination of number of children at home, number of hours spent on family activities, parental (time) demands, and time commitment to family. Michel et al. found that family demands had only a weak relationship with family-work conflict ($r = .09$) and family satisfaction ($r = .04$).

There is conflicting evidence as to whether family demands leads to greater inter-role conflict. Kinnunen et al. (2006) found that the number of dependant children living at home was related to both positive work-family spillover and negative family-work spillover. Therefore, although dependent children created inter-role conflict, they also enrich the work-family interface (Kinnunen et al., 2006). This suggests that parenthood may be a resource and skills learned in the family domains may enhance the work domain.

However, most of these typical perspectives of family demand are objective measures, “…which does not account for other ameliorating variables that affect the subjective experience of demand” (Boyar et al., 2008, p. 217). Boyar et al. (2007) used a subjective measure of family demand, which captured “the level and intensity of responsibility within the family domain” (p. 103). Utilising a sample of 698 university employees (average age 42.7 years), Boyar et al. found that the relationship between perceived subjective family demands and family-work conflict was significantly higher than using an objective measure of family demand ($r = .39$, $p < .01$). Therefore, employees who perceived greater levels of responsibility or demand from their families were more likely to struggle with their work (Boyar et al., 2003).

*Hours worked per week.*

It is well-known that long working hours can have negative consequences for individuals who struggle to balance their work and family demands (Grosch, Caruso,
Rosa, & Sauter, 2006; Major et al., 2002; Pocock, 2005b). Many Australian workers are discontented with their working hours, and many would prefer to work fewer hours (Wooden, 2004). Although women are more likely than men to be dissatisfied with long work hours, increasingly more men would prefer to work fewer hours, with many men linking their perception of work-life imbalance with the length of working hours. This dissatisfaction with work hours is not necessarily related to actual hours worked, but is due to the increase in work pace and intensity (Pocock, 2002) and the desire by working men and women to spend more time with their children (Thornwaite, 2004). Many families are feeling pressured for time because both partners are working and there has been an increase in total household working time, which includes both unpaid (household responsibilities) and paid work (Jacobs & Gerson, 2004). In a sample of 202 Finnish employees, Kinnunen et al. (2006) found that the more hours worked per week significantly predicted greater levels of work-family conflict. Similarly, Byron’s (2005) meta-analysis of antecedents of work-family conflict found 22 studies which demonstrated a relationship (sample size average weighted correlations $p$) between hours worked per week and work-family conflict ($p = .26$); however, the hours worked per week did not have a significant association with family-work conflict ($p = .01$).

**Organisational time expectations and negative career consequences.**

Thompson et al. (1999) were one of the first to propose that a work-family organisational culture consisted of three dimensions: managerial support, organisational time expectations (expectations that employees spend much time visibly at work), and career consequences (perception of negative career development as a consequence of the uptake of work-family, such as flexible working schedules). Dikkers et al. (2004) used dimensions of organisational time expectations and
perceived career consequences in a new measure based on Thompson et al.’s original scale. Dikkers et al. hypothesised that employees who perceived that their employers expected them to work overtime on a regular basis (organisational time expectations) or who believed that they would not advance in their career if they reduced their work hours (career consequences) would experience increased work-family conflict and family-work conflict, and decreased levels of work-family enrichment and family-work enrichment. Using a sample of 1179 participants (average age 40 years, $SD = 10.7$), from a range of both public and private organisations, Dikkers et al. found support for their hypotheses that organisational time expectations and perceived negative career consequences significantly predicted work-family conflict, but they did not have any influence on family-work conflict or either direction of enrichment. Therefore, employees who experienced high organisational time demands and perceived that they would be obstructed in their careers if they needed to reduce hours due to family commitments were more likely to experience work as being more stressful, and this spilled over to their family life. A limitation with this study is that Dikkers et al. combined organisational time expectations and career consequences into one subscale of hindrance, which suggests that all employees who feel they have excessive time demands also perceived that reducing hours for their private life was detrimental to their careers. However, this may not be the case, as some employees are content with putting in long hours, as they feel that it is an integral part of their job, and may not have the need to reduce hours or feel that they would be penalised for doing so. Therefore, the present study will measure these two variables independently.
Consequences of Work-Life Balance

**Job satisfaction.**

There exists substantial evidence for the relationship between work-family conflict/balance and job satisfaction (Saltzstein et al., 2001). Lack of balance leads to a reduction in job satisfaction, and job satisfaction has a strong link with absenteeism and turnover (Saltzstein et al., 2001). Using data from the 1991 Survey of Federal Government Employees ($N = 32103$), Saltzstein et al. found a moderate link between work-life balance and job satisfaction ($\beta = .22 - .37$, $p < .05$), across diverse groups of employees with differing work and family needs (e.g., single parents, dual-income families, or singles with no dependents). Other variables that had a link with job satisfaction across all groups were work demands and organisational support. Saltzstein et al. conceded that the relationship between perceived organisational support and job satisfaction may be reciprocal, in that employees who are satisfied and happy with their job may view their organisation as being more supportive, and also may be more positive regarding their own ability to manage their work-family balance.

Kossek and Ozeki (1998) and Allen, Herst, Bruck, and Sutton (2000) conducted meta-analyses on the relationship between work-family conflict and job satisfaction, and found moderate negative associations ($r = -.23$, $r = -.24$), respectively. Individuals who reported lower levels of work-life conflict have been found to consistently report higher levels of job satisfaction (Allen et al., 2000). Family-work conflict is also linked to reduced job satisfaction, though not as strongly as work-family conflict. Ford et al. (2007) conducted a meta-analysis to test the relationship between family-work conflict and job satisfaction ($N = 1093$) and found that there was a significant, albeit weak, association ($\beta = -.14$, $p < .05$). More
recently, Lapierre et al. (2008), using samples of managers from five Western countries \((N = 1553)\), tested dimensions of Carlson et al.’s (2000) work-family conflict scale and found that strain- and time-based work-family conflict, as well as strain- and time-based family-work conflict were significantly related to job satisfaction \((r = -.17\) to \(-.24)\).

Research that has examined the positive components of work-family balance has found that work-family enrichment has a moderate relationship with job satisfaction. Ayree et al. (2005) hypothesised that the enrichment component of work-family balance would be positively related to job satisfaction. The results confirmed that both work-family enrichment and family-work enrichment were significantly associated with job satisfaction \((r = .28, r = .21)\). Ayree et al. suggested that “control over work and family roles may enhance performance, leading to self-esteem…, and ultimately to job satisfaction” (p. 143). As Wayne et al. (2004) reported, when individuals experience enrichment from their work, they demonstrate greater satisfaction with their work, which flows onto better overall functioning of workplace dynamics, such as better co-worker and supervisor relationships.

Michel and Clarke (2009) recruited 187 participants, average age 39 years, and found moderate to strong associations between work-family enrichment and both job and family satisfaction \((r = .51, r = .34)\), respectively. Similarly, Balmforth and Gardner (2006) found that employees who reported higher levels of both work-family enrichment and family-work enrichment reported higher levels of job satisfaction.

More recently, McNall et al. (2010) conducted a meta-analytic review of the consequences associated with work-family and family-work enrichment, which included both job and family satisfaction. McNall et al. examined 14 studies \((N = 7144)\) that measured job satisfaction as an outcome measure and found that the
relationship (sample size weighted correlations $r$) between work-family enrichment and job satisfaction ranged from $r = .18$ to $r = .46$ (average $r = .27$). McNall et al. investigated 15 studies ($N = 6751$) that examined the relationship between family-work enrichment and job satisfaction, and found significant correlations, which ranged from $r = .15$ to $r = .22$ (average $r = .16$). The results confirmed the positive relationships between enrichment and job satisfaction and that work-family enrichment had a stronger relationship with job satisfaction than family-work enrichment (McNall et al., 2010). McNall et al. suggested that these results may be “… due to the norm of reciprocity, which obliges individuals to reciprocate toward the direction of the source of enrichment” (p. 393).

**Family satisfaction.**

Not only does work-life imbalance relate to an individual’s well-being, it also affects effective functioning as a parent and partner (O'Driscoll et al., 2003). A growing body of international research has identified that long and intensive working patterns are associated with dysfunctional family environments, which lead to negative health outcomes, especially for parents, strained familial relationships, dysfunctional parenting, and reduced child well-being: “In other words, high work-life conflict negatively affects employees' abilities to enjoy and nurture their families” (Duxbury & Higgins, 2003, p. 49). Lapierre et al. (2008) examined linkages between conflict and family satisfaction with managers from five different Western countries (Canada, United States, Finland, Australia, and New Zealand: $N = 1553$). They found that high levels of work-family conflict (time- and strain-based) significantly predicted less family satisfaction. However, there was a stronger relationship for conflict that originated in the home domain, in particular, high levels of strain-based family-work conflict significantly predicted lower levels of family satisfaction ($\beta = -$
This supports the findings by Brough et al. (2005), who found that there was a stronger relationship between family-work conflict and family satisfaction, than between work-family conflict and job satisfaction. This highlights the need for researchers to focus attention on family outcomes associated with inter-role conflict.

McNall et al. (2010) examined the relationships between work-family enrichment, family-work enrichment and family satisfaction in nine published studies (N = 5006). The results of this meta-analysis indicated that family-work enrichment had a stronger association with family satisfaction than did work-family enrichment (r = .34, r = .11, respectively). Hill (2005) found that only family-work enrichment was related to family satisfaction, whereas work-family enrichment was related only to job satisfaction.

Although the results by McNall et al. (2010) indicated that both types of enrichment played important roles in enhancing work and family outcomes, resources generated in the home were more important to the home domain than resources generated in the workplace.

**Work-life balance as a mediator**

There have been numerous studies that have examined the mediating role that the components of work-life balance have between work/family demands and work/family resources and outcomes such as job and family satisfaction (Boyar & Mosley Jr., 2007; Lapierre et al., 2008; Michel et al., 2009; Wayne et al., 2004), job satisfaction (Balmforth & Gardner, 2006; Baral & Bhargava, 2009; Grandey, Cordeiro, & Michael, 2007), burnout (Barnett, Gareis, & Brennan, 1999; Peeters, Montgomery, Bakker, & Schaufeli, 2005; ten Brummelhuis, van der Lippe, Kluwer, & Flap, 2008), work engagement (Peeters et al., 2009), life satisfaction (Gareis et al., 2009), job exhaustion and psychological distress (Lapierre et al., 2008), positive work
and positive family well-being (Allis & O'Driscoll, 2008), physical and mental well-being (Geurts, Kompier, Roxburgh, & Houtman, 2003), and turnover intentions (Brotheridge & Lee, 2005).

Michel et al. (2009) tested a series of meta-analytic path analyses using existing work-family conflict models. A total of 211 studies, with 263 samples, were included in the meta-analysis. Only studies that included a measure of work-family and/or family-work conflict, plus at least two or more variables of interest were utilised. Four alternative work-family models were tested using maximum likelihood estimation method. The 95% confidence intervals indicated that 85.44% of the meta-analytic correlations were significant. Each model incrementally added demand and resource variables, and all included work-family conflict and family-work conflict as mediating variables, and job satisfaction and family satisfaction as outcome variables. Each model fit the data well and accounted for a large portion of variance in the outcome variables as more predictor variables were added (e.g., 26% to 40% variance of job satisfaction and 25% to 38% variance of family satisfaction). In order to determine the influence that the work-family conflict construct had predicting satisfaction outcomes in a structural model, Michel et al. tested their model with and without work-family conflict and family-work conflict pathways.

The results from this meta-analytic analysis found that work time demands and work-role conflict predominantly predicted work-family conflict, whereas work social support variables were primary predictors of job satisfaction. Although family-role conflict was predictive of family-work conflict, family-time demands (number of hours worked, number of dependent children, and age of youngest child) were not. This finding has implications for organisations, as many working mothers feel that they are discriminated against because of their family commitments, whereas Michel
et al. (2009) found that family time demands did not impact on their work. Michel et al. found evidence that family support was a primary predictor of family satisfaction.

Furthermore, the results indicated that in the direct model (not including work-family constructs), work antecedents (demand and resource variables) explained 39% of the variance in job satisfaction, whilst family antecedents explained 38% of the variance in family satisfaction. Michel et al. concluded that work-family conflict and family-work conflict indirect effects “…possess small incremental explication in the prediction of satisfaction outcomes” (p. 210).

A limitation noted by Michel et al. (2009) included the variability of the meta-analytic bivariate relationships. All studies \((k = 121, n = 47305)\) included work-family/family-work conflict variables, whilst others had small samples of variables such as work-time demands \((k = 1, n = 261)\). Furthermore, although Michel et al. provided a comprehensive review and analysis of multiple studies in the work-family interface, they only considered the influence of the negative side of this interface (conflict), and did not include the positive effects that work can have on family, and that family can have on work (enrichment). The present study will examine the indirect effects of the antecedents (demands and resources from both work and family) on the outcomes (job satisfaction and family satisfaction) via the components of work-life balance (work-family conflict, family-work conflict, work-family enrichment, family-work enrichment, and balance).

Limited research has examined the predictors of work-family enrichment (Zimmerman & Hammer, 2010), and in comparison to work-family conflict, work-family enrichment needs further empirical development (Gareis et al., 2009). Thompson and Prottas (2005) analysed data from the 2002 National Study of Changing Workforce \((N = 3504)\) to examine the relationship between informal
organisational support (work-family culture, supervisor support, and co-worker support) with outcomes such as work-family enrichment, job satisfaction, and family satisfaction. Using hierarchal regression analysis, all informal organisational support variables were entered simultaneously. The results supported their hypothesis that supervisor and co-worker support and a supportive work-culture significantly predicted enrichment, job satisfaction, and family satisfaction (Thompson & Prottas, 2005). Although no specific mediation analyses were conducted, work-family enrichment could act as a mediator between workplace support and both job and family satisfaction. Feeling supported could enrich the individual’s experience at work, and this could lead to greater satisfaction in the family domain as well as the work domain.

Lu et al. (2009) tested some of the antecedents and outcomes of work-family enrichment and family-work enrichment, but did not conduct a mediation analysis. Lu et al. found that family friendly co-workers had a positive relationship with both work-family enrichment ($\beta = .39$) and family-work enrichment ($\beta = .26$) and that both work-family and family-work enrichment positively predicted job satisfaction ($\beta = .39, \beta = .27$, respectively).

More recently, Mustapha, Ahmad, Uli, and Idris (2010) tested whether work-family enrichment mediated the relationship between both supervisor and co-worker support and intention to stay in the organisation. Mustapha et al. recruited a sample of 240 single mothers (average age 39.6, $SD = 3.63$) from both private and government organisations in Malaysia. The results indicated that the relationships between co-worker support and supervisor support on intention to stay was partially mediated by work-family enrichment. These findings suggest that co-workers and supervisors are in the position to offer family enriching support, as they have a clear
understanding of the stressors faced by their colleagues (Mustapha et al., 2010). Receiving this support from the workplace might then lead to greater confidence, which might further enhance functioning in the family (work-family enrichment), and this transfer of positive experience might facilitate greater job and family satisfaction. Mustapha et al. found a strong direct relationship between work-family enrichment and family satisfaction ($r = .55, p < .01$).

**Theoretical Framework of Current Study**

Although the preoccupation in the work-life literature has been on the negative effect of combining work with family and other roles, the positive effects of role combination has recently received more attention (Wayne et al., 2007). In order to fully understand the dynamics of work-life balance, it is necessary to understand the factors that promote work-family enrichment, as well as knowing what factors reduce work-family conflict (Frone, 2003). Work-life balance encompasses both negative and positive relationships, and it is crucial to differentiate between conflict, enrichment, and balance (Carlson et al., 2009). Consistent with emerging trends, I will focus on the positive psychological perspective of role combination (enrichment), as well as recognising the negative impacts of inter-role conflict. The theoretical framework for this study will integrate and extend three complementary theories to better understand the complexity of the work-family interface: positive organisational scholarship (Cameron et al., 2003), social exchange theory (Blau, 1964), and conservation of resources theory (Hobfoll 1989).

Positive organisational scholarship has its foundations in positive psychology, which focuses on strengths rather than weakness, and wellness rather than disease (Peterson & Seligman, 2003). Positive organisational scholarship is concerned primarily with the study of positive processes that facilitate positive outcomes for
both the organisation and the individuals who work there (Cameron et al., 2003).

Work-family enrichment clearly fits within the positive organisational scholarship framework, as organisations that focus on enriching organisational membership, as well as enriching the work that individuals do, promote meaningfulness at work (Pratt & Ashforth, 2003; Wayne et al., 2007). Individual members have a yearning to belong to a community and have personal connections. Recognition that employees have a life outside work and being supportive of this (inviting family members to work functions, allowing staff to attend to family duties), builds organisational membership (Pratt & Ashforth, 2003). According to positive organisational scholarship, individuals prefer positive experiences to negative ones, and an environment that offers the opportunity to develop and utilise their strengths, inevitably profits from this (Wayne et al., 2007).

Social exchange theory (Blau, 1964) is one of the leading paradigms for understanding workplace interactions and behaviours (Cropanzano & Mitchell, 2005a). One of the basic tenets of social exchange theory is the reciprocity principle, that social exchange “requires a bi-directional transaction — something has to be given and something returned” (Cropanzano & Mitchell, 2005a, p. 875). Social support, perceived organisational support in particular, is a social exchange mechanism (Aryee et al., 2005) that fits within social exchange theory framework. When an employee feels that their employer is receptive and supportive of their family needs, they are more likely to reciprocate by being more committed to the organisation (Aryee et al., 2005; Lu et al., 2009; Wayne et al., 2006) and demonstrate enhanced job performance and less withdrawal behaviour (Rhoades & Eisenberger, 2002).
Social support from supervisors and co-workers can also be viewed as a coping resource, in which an exchange occurs between both parties, and it is this exchange that leads to accumulated goodwill (Ito & Brotheridge, 2003). Supervisors have the hierarchical power to offer resources (e.g., flexible working schedule so that an employee can attend a child’s sporting event) and can put a good word in for their subordinate to management (e.g., asking management for compassionate leave for an employee to attend to a parent who is terminally ill). However, this exchange can only occur if the employee asks for assistance and advice from others to help solve problems and cooperates with the supervisor to find a solution (Ito & Brotheridge, 2003). This two-way exchange of resources is beneficial in maintaining the status quo in the workplace and helps build and conserve resources for both employees and employers. Therefore, individuals who find their work enriching will be more likely to experience higher levels of family and job satisfaction. Conversely, workers who do not receive rewards or support for their family responsibilities may feel less committed to their organisation, demonstrate reduced performance, and may look for a job that enables them to balance their family and work commitments.

Both positive organisational scholarship (Cameron et al., 2003) and social exchange theory (Blau, 1964) provide a framework to understand how enrichment occurs, and the importance of having resources. Conservation of resources (Hobfoll, 1989, 2001) also explains enrichment. The basic premise of conservation of resources theory is that “people strive to retain, protect and build resources and that what is threatening to them is the potential or actual loss of these valued resources” (Hobfoll, 1989, p. 513). Hobfoll (2001) defined resources as properties in the environment that can be utilised and “are valued by the individual” (Hobfoll, 1989, p.516). Resources include: *personal characteristics* such as individual traits and skills (e.g., self esteem),
energy resources (such as time, money, and knowledge) and conditions which are resources from both the family and work (such as marriage or tenure). Hobfoll (2002) classifies social support as a separate family of resources, “a complex meta-construct” (p.309), which can be viewed as (a) beneficial and providing for situational needs (e.g., partner who earns enough money, so that a partner can choose to stay home and look after the children), or (b) detrimental when it does not (e.g., an unhappy marriage or workplace bullying).

From a conservation of resources perspective, positive resources or experiences that are gained from the workplace or family are likely to accrue and create positive spirals of resources, thus enabling individuals who have resources to gain further resources (Mauno, Kinnunen, & Ruokolainen, 2007). Similar to co-worker and supervisor support generating resources in the workplace, receiving support from a spouse or family member can enrich work outcomes (ten Brummelhuis, van der Lippe, & Kluwer, 2010). Having a supportive spouse or family member, who offers emotional support, assists with household tasks, and who may give work-related advice, leads to increased fulfilment in family life, which then facilitates work outcomes, such as becoming a better team player (ten Brummelhuis et al., 2010). These positive social exchanges that occur within the family unit spill over to the workplace. This linkage between family and work can be explained by social exchange theory and conservation of resources theory, the assumption being that the accumulation of resources generates new resources, and individuals are better equipped to handle stress and conflict (Hobfoll, 2002), which leads to increased well-being (satisfaction) in both domains.

Of course, this also works in the opposite way, whereby a loss or lack of resources leads to a downward negative spiral (Mauno et al., 2007). Thus,
conservation of resources theory also explains the mechanisms of work-family conflict and family-work conflict (Grandey & Cropanzano, 1999; Hobfoll, 1989). Inter-role conflict leads to stress, because resources are lost in the process of coping with the time demands of work and non-work life. These potential or actual losses may lead to a negative state of being such as family dissatisfaction and job dissatisfaction, as well as to reduced mental well-being. Behaviours such as absenteeism and intention to leave the workplace are needed to replace or protect the threatened resources, otherwise the resources may become so depleted that burnout or depression ensues (Grandey & Cropanzano, 1999). Because resources are not distributed equally, people who lack resources are more vulnerable to further loss, which Hobfoll describes as loss spirals (1989). An example is an individual who leaves their job because they could not cope with the high level of demands, and cannot find another job because their self-esteem has been affected. The resulting economic hardship causes their personal relationship to breakdown and they then become depressed.

**Aims, Hypotheses, and Research Questions**

The overarching aim of this study is to test the merit of Frone’s model of work-life balance in a full structural model, and compare this to two alternative models of work-life balance, which are (a) Frone’s model plus the new Balance Scale from Study 1, and (b) a model which uses the Balance Scale only to test if a more simplistic model of work-life balance provides a better explanation.

As work-life balance has been shown to be a complex construct that has different components (as noted in Study 1, and further explained in this chapter), a further aim is to test the antecedents of work-life balance, and test if different components of work-life balance have different antecedents. Furthermore, work-life
balance will be tested as a mediator between the antecedents (demands and resources) and outcome variables (job satisfaction and family satisfaction).

**Relationship between demand variables and work-life balance.**

It is hypothesised that the demand variables will be negatively associated with the enrichment and balance variables, and positively associated with the conflict variables. Furthermore, it is hypothesised that demands that occur in the workplace (e.g., number of hours worked, work demands, organisational time expectations, and perceived negative career consequences) will be more strongly associated with work-family conflict and balance; whereas, family demands will be more strongly associated with family-work conflict and balance.

**Relationship between resource variables and work-life balance.**

It is hypothesised that the resource variables will be positively associated with the enrichment and balance variables, and negatively associated with the conflict variables. Furthermore, it is hypothesised that workplace resources (e.g., supervisor support, colleague support, and organisational support) will be more strongly associated with work-family enrichment and work-family conflict), whereas family support will be more strongly associated with family-work enrichment and family-work conflict. It is further expected that work-family support (organisational support) will be more strongly associated with work-family enrichment than general supervisor and co-worker support.

**Work-life balance as a mediator.**

It is hypothesised that the components of work-life balance will mediate the relationship between the demand and resource antecedents and outcome variables. Specifically, it is expected that work-family enrichment will mediate the relationship between workplace resources (organisational support, supervisor support, and co-worker support) and job satisfaction, whereas family-work enrichment will mediate
the relationship between family support and family satisfaction. Similarly, it is hypothesised that work-family conflict will mediate the relationship between workplace demands and job satisfaction, whereas family-work conflict will mediate the relationship between family demands and family satisfaction. It is further hypothesised that balance will act as a mediator between both work and family demands and resources and both job and family satisfaction.

Method

Participants.

The participants for this study were the same participants involved in Study 1. The 665 participants in this study consisted of teaching staff from 31 public schools in South East Queensland; with 15 schools being classified as rural and 16 schools classified as urban.

Materials.

In addition to the measures described in Study 1, which included the new balance scale, work-family conflict scale, work-family enrichment scale, job satisfaction, and family satisfaction, the study contained additional measures, which are described below.

Work and family demands.

Perceived work demands and perceived family demands were assessed using two scales developed by Boyar, Carr, Mosley Jr., and Carson (2007). These scales were developed specifically for use in work-family conflict research to identify antecedents of work-family conflict. Perceived work demands were measured by five items (e.g., “My work requires a lot from me”), and perceived family demands were measured by four items (e.g., “I have a lot of responsibility in my family”). Each item uses a 5-point Likert-type scale, which ranged from 1 (strongly disagree) to 5
(strongly agree). Validity of these scales was established by use of CFA to assess dimensionality, discriminant, and predictive validity (Boyar et al., 2007). Further, CFA demonstrated good validity of the scales within the work-family research domain (Boyar, Maertz Jr., Mosley Jr., & Carr, 2008). Reported internal consistencies (Cronbach’s alpha) were .89 for perceived work demands and .77 for perceived family demands (Boyar et al., 2008). Internal consistencies for the present study $\alpha = .84$ for work demands and $\alpha = .76$ for family demands.

**Supervisor, colleague and family support.**

Each of these constructs was measured separately using items devised by O’Driscoll et al. (2004). Respondents were asked how often they received the following support for work-related problems from their supervisor, work colleague or family: helpful information or advice, sympathetic understanding and concern, clear and helpful feedback, and practical assistance. Each item used a 6-point Likert-type scale, which ranged from 1 (never) to 6 (all the time). Siu and colleagues (2010) reported internal consistency coefficients of .86 for each of the three support factors, whilst the alpha coefficients for the three factors with the current sample ranged from .93 to .94.

**Organisational support and hindrance.**

Dikkers and colleagues (2004) developed an 18-item instrument to measure work-home culture. This study used 11 items from the original scale to measure three domains: organisational support (4-items, e.g., “In general, this organisation is considerate towards employees’ private situation”); career consequences (4-items, e.g., “In this organisation, employees who [temporarily] reduce their working hours for private reasons are considered less ambitious), and time expectations (3-items, e.g. “In order to be taken seriously in this organisation, employees should work long days
and be available all the time”). Respondents reported how much they agreed with the statements on a 5-point Likert-type scale ranging from 1 (totally disagree) to 5 (totally agree). Internal consistency (Cronbach’s alpha) was reported as .82 for organisational support, .85 for time expectations, and .79 for career consequences (Dikkers et al., 2007). Internal consistencies for the present study were α = .85 for organisational support, α = .85 for career consequences, and α = .85 for time expectations.

**Number of hours worked.**

Numbers of hours worked per week was assessed by a single item, “How many hours do you ‘actually’ work in a typical week?”

**Biographical variables.**

The biographical variables used in the current study were the same as for Study 1.

**Results**

**Data management.**

I created latent variables using a combination of individual items and subscales. Work-family enrichment and family-work enrichment latent variables were each represented by the three original subscales, with each subscale represented by three items. The work-family conflict and family-work conflict latent variables were each represented by two sub-domains (time-based and strain-based), with each sub-domain represented by three items. Balance was represented by four items. Work demands were represented by five items, and family demands were represented by four items.

Job satisfaction and family satisfaction were each represented by three items. Similarly, supervisor support, family support, colleague support, and organisational
support were each represented by four items. Organisational time expectations were represented by three items and career consequences were represented by four items. Number of hours worked per week was a single observed item that measured actual hours worked per week.

**Descriptive statistics.**

The means, standard deviations, and range of scores for all variables utilised in the measurement and structural models are presented in Table 4.1. Bivariate correlations and correlations among latent variables are presented in Table 4.2.

As described in Table 4.1, the means for the majority of the variables were above the mid-point for the scale, except for the two family-work conflict variables. This indicates that this sample of teaching staff reported higher levels of work-family conflict in comparison to family-work conflict, with work demands being reported more often than family demands. This sample reported levels of family and job satisfaction above the scale mean.

In order to test whether school itself contributed to the outcome variables of job satisfaction and family satisfaction, schools were classified as either rural or urban and differences assessed based on that variable. Location - rural compared with urban - has been identified as one of the most salient sources of stress for school teachers, which is reflected in differences in working conditions, support, salary, and relationships with students and the community (Abel & Sewell, 1999). Two independent-samples t-tests were conducted to compare job satisfaction and family satisfaction for teachers in urban or rural schools. When examining job satisfaction, there was no significant difference in scores for teachers in rural schools ($M = 4.05$, $SD = 0.83$) and urban schools ($M = 3.97$, $SD = 0.87$; $t(665) = 1.25$, $p = .21$). Similarly, when examining family satisfaction, there was no significant difference in
scores for teachers in rural schools ($M = 5.77, SD = 1.39$) and urban schools ($M = 5.93, SD = 1.34$, $t(665) = 1.44$, $p = .15$)."
Table 4.1

*Mean Scores, Standard Deviations, and Range of Scores for Study Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>$M$</th>
<th>$SD$</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance</td>
<td>3.02</td>
<td>1.48</td>
<td>0 – 6</td>
</tr>
<tr>
<td>Work-family conflict (strain)</td>
<td>3.30</td>
<td>1.00</td>
<td>1 – 5</td>
</tr>
<tr>
<td>Work-family conflict (time)</td>
<td>3.29</td>
<td>1.05</td>
<td>1 – 5</td>
</tr>
<tr>
<td>Family-work conflict (strain)</td>
<td>1.97</td>
<td>.80</td>
<td>1 – 5</td>
</tr>
<tr>
<td>Family-work conflict (time)</td>
<td>2.40</td>
<td>.88</td>
<td>1 – 5</td>
</tr>
<tr>
<td>Work-family enrichment</td>
<td>3.45</td>
<td>.73</td>
<td>1 – 5</td>
</tr>
<tr>
<td>Family-work enrichment</td>
<td>3.88</td>
<td>.62</td>
<td>1 – 5</td>
</tr>
<tr>
<td>Work demands</td>
<td>3.95</td>
<td>.69</td>
<td>1 – 5</td>
</tr>
<tr>
<td>Family demands</td>
<td>2.98</td>
<td>.83</td>
<td>1 – 5</td>
</tr>
<tr>
<td>Hours worked per week</td>
<td>43.40</td>
<td>12.17</td>
<td>9 – 70</td>
</tr>
<tr>
<td>Organisation support</td>
<td>3.48</td>
<td>.84</td>
<td>1 – 5</td>
</tr>
<tr>
<td>Organisation time expectations</td>
<td>3.35</td>
<td>1.03</td>
<td>1 – 5</td>
</tr>
<tr>
<td>Family support</td>
<td>4.23</td>
<td>1.24</td>
<td>1 – 6</td>
</tr>
<tr>
<td>Colleague support</td>
<td>4.18</td>
<td>1.07</td>
<td>1 – 6</td>
</tr>
<tr>
<td>Supervisor support</td>
<td>3.65</td>
<td>1.26</td>
<td>1 – 6</td>
</tr>
</tbody>
</table>
Table 4.2.  
Zero-Order Correlations (below diagonal), and Correlations among Latent Variables (above diagonal); (N = 665)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2. Balance</td>
<td>-0.05</td>
<td>1</td>
<td>-0.64*</td>
<td>-0.73***</td>
<td>-0.06</td>
<td>-0.14**</td>
<td>-0.39***</td>
<td>-0.14**</td>
<td>-0.49***</td>
<td>-0.13**</td>
<td>-0.44***</td>
<td>-0.43***</td>
<td>-0.36***</td>
<td>0.08*</td>
<td>0.15***</td>
<td>0.39***</td>
<td>0.25***</td>
<td>0.19***</td>
<td>0.27***</td>
</tr>
<tr>
<td>3. Work-Family Conflict</td>
<td>0.07</td>
<td>-0.61***</td>
<td>0.67***</td>
<td>-0.21***</td>
<td>-0.22***</td>
<td>-0.48***</td>
<td>-0.18***</td>
<td>-0.39***</td>
<td>0.15***</td>
<td>-0.23***</td>
<td>-0.47***</td>
<td>-0.37***</td>
<td>-0.12**</td>
<td>-0.12**</td>
<td>-0.46***</td>
<td>-0.23***</td>
<td>-0.19***</td>
<td>-0.32***</td>
<td></td>
</tr>
<tr>
<td>4. Work-Family Conflict</td>
<td>-0.03</td>
<td>-0.68***</td>
<td>-0.60***</td>
<td>0.10*</td>
<td>-0.23***</td>
<td>-0.33***</td>
<td>-0.08</td>
<td>0.46***</td>
<td>0.10*</td>
<td>0.39***</td>
<td>-0.46***</td>
<td>-0.41***</td>
<td>-0.03</td>
<td>-0.14**</td>
<td>-0.32***</td>
<td>-0.09*</td>
<td>-0.18***</td>
<td>-0.29***</td>
<td></td>
</tr>
<tr>
<td>5. Family-Work Conflict</td>
<td>-0.14***</td>
<td>-0.06</td>
<td>0.19***</td>
<td>-0.10*</td>
<td>0.53***</td>
<td>-0.14***</td>
<td>-0.25***</td>
<td>-0.06</td>
<td>0.39***</td>
<td>-0.10*</td>
<td>-0.11*</td>
<td>-0.12**</td>
<td>0.26***</td>
<td>0.06</td>
<td>-0.12*</td>
<td>-0.35***</td>
<td>-0.03</td>
<td>0.09</td>
<td></td>
</tr>
<tr>
<td>6. Family-Work Conflict</td>
<td>-0.04</td>
<td>-0.14***</td>
<td>-0.21***</td>
<td>-0.21***</td>
<td>0.47***</td>
<td>1</td>
<td>-0.14***</td>
<td>0.03</td>
<td>0.07</td>
<td>0.51***</td>
<td>-0.14***</td>
<td>-0.12**</td>
<td>0.25***</td>
<td>0.12***</td>
<td>0.04</td>
<td>-0.20***</td>
<td>-0.10*</td>
<td>-0.06</td>
<td>0.23***</td>
</tr>
<tr>
<td>7. WFE</td>
<td>0.15***</td>
<td>0.35***</td>
<td>-0.40***</td>
<td>-0.29***</td>
<td>-0.11**</td>
<td>-0.11**</td>
<td>1</td>
<td>0.47***</td>
<td>-0.12**</td>
<td>-0.06</td>
<td>-0.02</td>
<td>0.50***</td>
<td>-0.31***</td>
<td>-0.01</td>
<td>0.17***</td>
<td>-0.75***</td>
<td>0.14***</td>
<td>0.31***</td>
<td>-0.34***</td>
</tr>
<tr>
<td>8. FWE</td>
<td>0.08*</td>
<td>0.09*</td>
<td>-0.13**</td>
<td>-0.07</td>
<td>-0.19***</td>
<td>0.02</td>
<td>0.40***</td>
<td>0.10**</td>
<td>-0.05</td>
<td>0.02</td>
<td>0.25***</td>
<td>-0.10**</td>
<td>0.26***</td>
<td>0.16**</td>
<td>0.27***</td>
<td>0.44***</td>
<td>0.17***</td>
<td>-0.14**</td>
<td></td>
</tr>
<tr>
<td>9. Work Demands</td>
<td>0.09</td>
<td>-0.52***</td>
<td>-0.39***</td>
<td>-0.43***</td>
<td>-0.04</td>
<td>0.06</td>
<td>-0.14***</td>
<td>0.03</td>
<td>0.10</td>
<td>0.13***</td>
<td>-0.34***</td>
<td>-0.28***</td>
<td>0.30***</td>
<td>0.03</td>
<td>0.03</td>
<td>-0.15***</td>
<td>-0.09*</td>
<td>-0.02</td>
<td>0.21***</td>
</tr>
<tr>
<td>10. Family Demands</td>
<td>0.02</td>
<td>-0.15***</td>
<td>-0.16***</td>
<td>-0.12**</td>
<td>0.36***</td>
<td>0.42***</td>
<td>-0.04</td>
<td>0.08</td>
<td>0.17***</td>
<td>1</td>
<td>-0.16***</td>
<td>-0.05</td>
<td>0.18***</td>
<td>0.17***</td>
<td>-0.06</td>
<td>0.08</td>
<td>-0.21***</td>
<td>-0.03</td>
<td>0.13**</td>
</tr>
<tr>
<td>11. Hours per week</td>
<td>-0.12**</td>
<td>-0.44***</td>
<td>-0.23***</td>
<td>-0.37***</td>
<td>-0.10**</td>
<td>-0.11**</td>
<td>-0.04</td>
<td>-0.04</td>
<td>0.34***</td>
<td>-0.12**</td>
<td>1</td>
<td>-0.20***</td>
<td>-0.17***</td>
<td>-0.02</td>
<td>-0.06</td>
<td>0.07</td>
<td>-0.07**</td>
<td>-0.02</td>
<td>0.10**</td>
</tr>
<tr>
<td>12. Organisation Support</td>
<td>0.03</td>
<td>0.34***</td>
<td>-0.38***</td>
<td>-0.36***</td>
<td>-0.11**</td>
<td>-0.11**</td>
<td>0.40***</td>
<td>0.20***</td>
<td>-0.23***</td>
<td>-0.08</td>
<td>-0.16***</td>
<td>0.60***</td>
<td>0.04</td>
<td>0.25***</td>
<td>0.54***</td>
<td>0.09*</td>
<td>0.45***</td>
<td>-0.62***</td>
<td></td>
</tr>
<tr>
<td>13. Organisational Time</td>
<td>-0.01</td>
<td>-0.34***</td>
<td>-0.38***</td>
<td>-0.35***</td>
<td>-0.10**</td>
<td>0.21***</td>
<td>-0.26***</td>
<td>0.07</td>
<td>0.29***</td>
<td>0.15***</td>
<td>-0.17***</td>
<td>-0.49***</td>
<td>1</td>
<td>0.00</td>
<td>-0.06</td>
<td>-0.40***</td>
<td>-0.09*</td>
<td>-0.20***</td>
<td>0.73***</td>
</tr>
<tr>
<td>14. Family Support</td>
<td>0.00</td>
<td>0.09*</td>
<td>-0.11**</td>
<td>-0.02</td>
<td>-0.26***</td>
<td>-0.10**</td>
<td>0.01</td>
<td>0.20***</td>
<td>0.02</td>
<td>0.15***</td>
<td>-0.02</td>
<td>0.03</td>
<td>0.00</td>
<td>1</td>
<td>0.27***</td>
<td>0.03</td>
<td>0.39***</td>
<td>0.22***</td>
<td>-0.03</td>
</tr>
<tr>
<td>15. Colleague Support</td>
<td>0.14***</td>
<td>0.13***</td>
<td>-0.10**</td>
<td>-0.13**</td>
<td>-0.06</td>
<td>0.04</td>
<td>0.15***</td>
<td>0.13***</td>
<td>0.03</td>
<td>-0.06</td>
<td>-0.06</td>
<td>0.25***</td>
<td>-0.10**</td>
<td>0.26***</td>
<td>1</td>
<td>0.18***</td>
<td>0.07</td>
<td>0.50***</td>
<td>-0.15***</td>
</tr>
<tr>
<td>16. Job Satisfaction</td>
<td>0.05</td>
<td>0.36***</td>
<td>-0.41***</td>
<td>-0.27***</td>
<td>-0.10**</td>
<td>-0.17***</td>
<td>0.63***</td>
<td>0.21***</td>
<td>-0.16***</td>
<td>-0.06</td>
<td>-0.06</td>
<td>0.45***</td>
<td>-0.35***</td>
<td>0.03</td>
<td>0.18</td>
<td>1</td>
<td>0.17***</td>
<td>0.35***</td>
<td>-0.41***</td>
</tr>
<tr>
<td>17. Family Satisfaction</td>
<td>0.01</td>
<td>0.24***</td>
<td>-0.20***</td>
<td>-0.08*</td>
<td>-0.33***</td>
<td>0.09*</td>
<td>0.14***</td>
<td>0.34***</td>
<td>-0.07</td>
<td>-0.20***</td>
<td>-0.06</td>
<td>0.07</td>
<td>0.08</td>
<td>0.39***</td>
<td>0.06</td>
<td>0.13**</td>
<td>1</td>
<td>0.03</td>
<td>-0.06</td>
</tr>
<tr>
<td>18. Supervisor Support</td>
<td>0.14***</td>
<td>-0.17***</td>
<td>-0.17***</td>
<td>-0.17***</td>
<td>-0.03</td>
<td>-0.07</td>
<td>0.29***</td>
<td>0.15***</td>
<td>-0.03</td>
<td>-0.02</td>
<td>-0.02</td>
<td>0.43***</td>
<td>-0.19***</td>
<td>0.21***</td>
<td>0.48**</td>
<td>0.32***</td>
<td>0.02</td>
<td>1</td>
<td>0.28***</td>
</tr>
<tr>
<td>19. Career Consequences</td>
<td>-0.06</td>
<td>-0.24***</td>
<td>-0.27</td>
<td>0.23***</td>
<td>0.09*</td>
<td>0.21***</td>
<td>-0.28***</td>
<td>-0.12**</td>
<td>0.20***</td>
<td>0.11**</td>
<td>-0.08*</td>
<td>-0.53***</td>
<td>0.63***</td>
<td>-0.03</td>
<td>-0.13**</td>
<td>-0.35***</td>
<td>-0.06</td>
<td>-0.27***</td>
<td></td>
</tr>
</tbody>
</table>

*Note* * = p < .05; ** = p < .01; *** = p < .001. WFE = work-family enrichment, FWE = family-work enrichment.
As demonstrated in Table 4.2, the relationship between the antecedent demand variables and work-life balance variables were correlated in the expected directions. Workplace demands, such as number of hours worked per week, work demands, organisational time expectations, and career consequences were more strongly associated with work-family conflict (time-based and strain-based) than family-work conflict. Similarly, family demands were more strongly associated with family-work conflict (time- and strain-based), and less so with work-family conflict.

The antecedent resource variables were positively associated with the enrichment and balance variables, and negatively associated with the conflict variables in the expected direction. Workplace resources such as supervisor support, colleague support, and organisational support were more strongly associated with work-family enrichment than family-work enrichment. Work-family organisational support had a stronger association with all components of work-life balance than supervisor and co-worker support. Family support had a stronger negative association with family-work conflict strain-based than family-work conflict time-based and a positive association with family-work enrichment.

Women were more likely to report higher levels of both supervisor and colleague support than men. They reported higher levels of work-family enrichment, and experienced greater family-work conflict (strain-based) than men. There were no other significant associations between gender and the study variables. As there were no significant differences for gender in either job satisfaction or family satisfaction, and the previous associations were low ($r = .12$ to $.15$), the forthcoming models will be run with men and women together.
Steps in model testing.

Following the recommendations of Anderson and Gerbing (1988), Kline (2005), and Byrne (2010), the recommended two-step approach was used for model testing. First, a measurement model containing all variables was evaluated. Second, the three structural models were tested to find the model that best fit the data. Then, a series of models was run to assess whether work-life balance (work-family enrichment, family-work enrichment, work-family conflict strain, family-work conflict strain-based, and balance) mediated the relationship between the antecedent variables (demands and resources) and the outcome variables (job and family satisfaction).

All analyses were conducted using maximum likelihood estimation within the AMOS 20 software. Similar to Study 1, I examined several goodness of fit statistics, which included the chi-square statistic ($\chi^2$), Comparative Fit Index (CFI), Tucker Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Standardised Root Mean-Square Residual (SRMR). As previously reported, the $\chi^2/df$ statistic was also reported due to the sensitivity of the $\chi^2$ statistic with large samples.

Measurement model.

The measurement model consisted of the 17 latent variables and one observed variable. Antecedent variables were available resources (organisational support, supervisor support, colleague support, and family support) and demands (work demands, family demands, organisational time expectations, career consequences, and actual number of hours worked). Mediating variables were work-life balance, which was represented by a combination of work-family enrichment, family-work enrichment, work-family conflict (both time-based and strain-based), family-work conflict (both time-based and strain-based), and balance (the new measure from Study
The outcome variables that were considered were family satisfaction and job satisfaction. All 18 variables were allowed to covary freely. Confirmatory factor analysis was used to test if all items and multi-item parcels represented the latent variables as intended. The fit statistics, $\chi^2(1607) = 2740.16, p < .001$, $\chi^2/df = 1.71$, CFI = .96, TLI = .95, RMSEA = .03, demonstrated a satisfactory fit for these data. Table 4.2 reports correlations among the latent variables, which were all consistent with the bivariate correlations.

**Model testing.**

The first model to be tested was Frone’s model of work-life balance. Frone’s model assumes that work-family conflict, family-work conflict, work-family enrichment, and family-work enrichment represent work-life balance. Model 1 tested the antecedents and consequences to Frone’s work-life balance model in a full structural model (see Figure 4.2). Model 2 tested an alternative work-life balance model, which assumed that work-family conflict, family-work conflict, work-family enrichment, family-work enrichment, and balance represented work-life balance (see Figure 4.3). Model 2 also included the antecedents and consequences of the alternative work-life balance model in a full structural model. Model 3 tested the balance latent variable alone, to ascertain if a more simplistic work-life balance model was plausible (see Figure 4.4). Kalliath and Brough (2008) suggested that constructs such as conflict or enrichment may not imply balance as such; therefore, a balance construct may be more parsimonious. This final model also included the antecedents and consequences in a full structural model. The results of these analyses are presented in Table 4.3.
Figure 4.2. Model 1: Frone’s model of work-life balance (N = 665).
Figure 4.3. Model 2: Alternative model of work-life balance (N = 665).
Figure 4.4. Hypothesised Model 3: Balance variable only ($N = 665$).
Table 4.3

*Goodness of Fit Statistics for Alternative Models of Work-Life Balance (N = 665)*

<table>
<thead>
<tr>
<th>Model</th>
<th>χ²/df</th>
<th>SRMR</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
<th>RMSEA (90% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(M1) Frone’s WLB</td>
<td>1.88</td>
<td>.06</td>
<td>.95</td>
<td>.94</td>
<td>.04</td>
<td>.03 - .04</td>
</tr>
<tr>
<td>(χ² = 2755.99; df = 1470, p &lt; .001)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(M2) Alternative WLB</td>
<td>1.85</td>
<td>.06</td>
<td>.95</td>
<td>.95</td>
<td>.04</td>
<td>.03 - .04</td>
</tr>
<tr>
<td>(χ² = 3125.17; df = 1692, p &lt; .001)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(M3) Balance Only</td>
<td>2.09</td>
<td>.07</td>
<td>.96</td>
<td>.95</td>
<td>.04</td>
<td>.04 - .04</td>
</tr>
<tr>
<td>(χ² = 1688.51; df = 810, p &lt; .001)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note:* WLB = work-life balance; CFI = comparative fit index; RMSEA = root mean square error of approximation; TLI = tucker-lewis index

All models fit the data well. Model 1 accounted for 58% of variance of job satisfaction and 30% of family satisfaction (see Figure 4.5). In comparison, Model 2 accounted for 58% of variance of job satisfaction, and 32% of family satisfaction (see Figure 4.6). The antecedents of the work-life balance variables accounted for the same amount of variance as Model 1. However, the new balance variable accounted for an additional 35% of the variance in the antecedents. Model 3 only accounted for 16% of the variance in job satisfaction and 6% of the variance of family satisfaction (see Figure 4.7). The antecedents of balance accounted for 42%. Although Model 3 captured a meaningful amount of variance from the antecedents, it was rejected because it explained much less of the variance in the two outcome variables.
Figure 4.5. Results of Model 1: Frone’s model of work-life balance. Note: WFE = work-family enrichment, FWE = family work enrichment, WFC = work-family conflict, and FWC = family-work conflict. (N = 665)
Figure 4.6. Results of Model 2: Alternative model of work-life balance. Note: WFE = work-family enrichment, FWE = family work enrichment, WFC = work-family conflict, and FWC = family-work conflict. (N = 665).
Figure 4.7. Results of Model 3: Balance variable only. (N = 665)
Although Frone’s model (Model 1) and the alternative Model 2 were similar, and whilst the addition of the balance variable did not increase the variance of job satisfaction, it did add unique variance to family satisfaction. In both Models 1 and 2, work-family conflict time-based and family-work conflict time-based did not predict either job or family satisfaction. Frone’s model posits that high levels of enrichment and low levels of conflict measure work-life balance; yet, only the strain-based conflict variables predicted job and family satisfaction. Model 2 paints a richer picture of the antecedents of work-life balance, which gives more understanding of the individual components of work-life balance. So, rather than competing with Frone’s model of work-life balance, the addition of the new balance variable was viewed as being complementary and adding richness and understanding to the complex phenomenon of work-life balance. Therefore, Model 2 was accepted as the most useful model and was used in all further analyses.

**Mediation Analyses**

Mediation analyses were conducted using Shrout and Bolger’s (2002) bias-corrected, bootstrap method test of indirect effects. The bootstrap data-resampling method establishes confidence intervals for testing the statistical significance of an indirect effect by making it possible to draw a large number of unique samples from the data with replacement. The indirect effects are then calculated from the bootstrap sample, which is then repeated a large number of times (Mallinckrodt, Abraham, Wei, & Russell, 2006). The bias-corrected, bootstrap test of mediation corrects for skew in the population, and when compared to other mediation methods, such as the Sobel (1982) first-order test (Preacher & Leonardelli, 2003), and Baron and Kenny’s (1986) tests of mediation, has been found “to be consistently the most powerful test across all conditions” (Fritz & Mackinnon, 2007, p. 237).
In order to test the mediational pathways, I used the recommendations of Shout and Bolger (2002), which included fitting multiple structural models that tested a number of direct and indirect effects between a predictor (X), a mediator (M), and an outcome variable (Y). This occurred in a two-stage process to test if mediation pathways were significant (see Figure 4.8). First, the direct pathway was tested to see if the relationship between X and Y was significant (e.g., organisation support predicting job satisfaction), and second, the pathways, which tested both the direct and indirect effects of X and Y via M (e.g., organisation support via work-family enrichment predicting job satisfaction), were assessed. The AMOS bootstrapping procedure was utilised with 1000 replacement samples to estimate standard errors (SEs) and 95% bias-corrected confidence intervals (CIs) for all direct and indirect estimates. The SEs and CIs were utilised to draw conclusions as to whether the components of work-life balance held a meditational role between antecedents and outcomes in the models, and to determine if these pathways were fully mediated, partially mediated, or no mediation occurred. All SEs and 95% CIs reported in the analyses are the bias-corrected bootstrap statistics. Mediation occurs when the predictor is significantly associated with the outcome, the mediator is significantly associated with both the predictor and the outcome, and the 95% confidence intervals of the indirect effect via the mediator do not include zero.

Similar to a procedure used by Zimmer-Gembeck, Chipuer, Hanisch, Creed, and McGregor (2006), a criterion was set that the lower CI of the significant direct paths between X and Y should be larger than zero. Additionally, the upper CI of the indirect path of $X \rightarrow Y$ via $M$ should be significantly larger than zero, in order to confidently determine whether $M$ played a meditational role, and to ascertain the strength of the mediation.
Figure 4.8. Two step process of mediation analysis according to Shrout and Bolger (2002).

**Work-family enrichment as a mediator.**

To determine if work-family enrichment mediated the relationship between support (both organisational and supervisor) and job satisfaction two models were estimated (see Figure 4.9). In the first model, only the direct paths ($X's \rightarrow Y$) between organisational support and job satisfaction, and supervisor support and job satisfaction, were tested. The second model included the hypothesised direct and indirect pathways between organisational support, supervisor support, work-family enrichment, and job satisfaction.
Figure 4.9. Work-family enrichment as a mediator between support (supervisor and organisation) and job satisfaction.

The first model (Model 1) included the direct paths from supervisor support and organisational support to job satisfaction; work-family enrichment was not included in this model. The model had a good fit to the data, $\chi^2(1694) = 3477.35, p < .001$, CFI = .94, RMSEA = .04; 95% CI [.03, .05]. Direct effects from both supervisor support and organisation support to job satisfaction were positive and significant, standardised path coefficients ($\beta$) were $.11, p < .05$; 95% CI [.01, .20] and $\beta = .53, p < .001$, 95% CI [.43, .62], respectively. Therefore, the first condition of mediation was confirmed; that is, the X $\rightarrow$ Y (supervisor support $\rightarrow$ job satisfaction, organisation support $\rightarrow$ job satisfaction) effects were significantly different from zero, when M (work-family enrichment) was not included in the model. The lower CI of the direct effect between organisation support and job satisfaction was acceptable. However, the lower CI of the direct effect between supervisor support and job satisfaction was small, .01; therefore, any conclusions regarding the strength of
association between supervisor support and job satisfaction should be viewed with caution.

The next step in the meditational analysis was to test the direct and indirect effects together (Model 2). This model included work-family enrichment as the mediator as well as the direct associations between supervisor and organisation support, and job satisfaction. This model had a good fit to the data, $\chi^2(1691) = 3110.16, p < .001$, CFI = .95, RMSEA = .04, 90% CI [.03, .05] with a significant effect of work-family enrichment on job satisfaction, $\beta = .61, p < .001$. The direct effects of organisation support → work-family enrichment was positive and significant, $\beta = .47, p < .001$. When the direct and indirect effects were tested together, there was still a significant direct effect between organisation support and job satisfaction, $\beta = .29, p < .001$, 95% CI [.22, .37], which indicated that work-family enrichment partially mediated the relationship between organisation support and job satisfaction, as identified by the 95% confidence intervals not containing zero.

When I used the same procedure to examine if work-family enrichment mediated the relationship between supervisor support and job satisfaction, the association between supervisor support and job satisfaction was no longer significant $\beta = .06, p = .16$, and the confidence intervals did not contain zero, 95% CI [.01, .11], indicating that work-family enrichment fully mediated the relationship between supervisor support and job satisfaction. Although the 95% bias-corrected confidence intervals of the indirect effect via the mediator did not include zero, the lower bound of the CI was low (.01) indicating that caution be required with this result.

**Family-work enrichment as a mediator.**

Similar to the procedure described previously, additional models were fit to examine family-work enrichment as a mediator. To determine if family-work
enrichment mediated the relationship between support (both organisational and family) and family satisfaction, two models were estimated (see Figure 4.10). In the first model, only the direct paths (X’s → Y) between organisational support and family satisfaction and family support and family satisfaction were tested. The second model included the hypothesised direct and indirect pathways between organisational support, family support, family-work enrichment, and family satisfaction.

![Diagram](image-url)

Figure 4.10. Family-work enrichment as a mediator between support (family and organisation) and family satisfaction.

When the direct paths were tested, family support, $\beta = .31$, $p < .001$; 95% CI [.23 to .39], but not organisation support, $\beta = -.04$, $p = .28$; 95% CI [-.13 to .04] was associated with family satisfaction. Thus, only family support met the criteria for mediation. The effect between family support and family satisfaction did not contain zero when family-work enrichment was not included in the model. This model had a good fit to the data $\chi^2(1694) = 3207.71$, $p < .001$, CFI = .95, RMSEA = .04, 90% CI [.03, .05].

When both the direct and indirect effects were tested together, family-work enrichment partially mediated the relationship between family support and family satisfaction, $\beta = .25$, $p < .001$; 95% CI [.08 to .28]. This model had a good fit to the
There was also significant positive relationships between family-work enrichment and family satisfaction, $\beta = .29 \ p < .001$, and family support and family-work enrichment $\beta = .26 \ p < .001$.

**Work-family conflict (strain-based) as a mediator.**

The same procedure was followed to ascertain if work-family conflict mediated the relationship between work demands, organisational time expectations, hours worked per week, organisational support, and job satisfaction (see Figure 4.11). When direct paths were tested between demand variables and job satisfaction, only organisational time expectations met the first criteria for mediation. The direct effect from organisational time expectation to job satisfaction was negative and significant, standardised path coefficients, $\beta = .19, \ p < .001; \ 95\% \ CI \ [-.22 \ to \ -.09]$. The lower CI of the direct effect between organisational time expectations and job satisfaction was acceptable. To investigate if work-family conflict (strain-based) mediated the relationship between organisational time expectation and job satisfaction both the direct and indirect effects were tested together, and the analysis revealed that work-family conflict (strain-based) partially mediated the relationship between organisational time expectations and job satisfaction, $\beta = .17, \ p < .001, \ 95\% \ CI \ [-.01 \ to \ -.05]$. This model had a good fit to the data $\chi^2(1690) = 3117.91, \ p < .001, \ CFI = .95, \ RMSEA = .04, \ 90\% \ CI \ [.03 \ - \ .04]$. There was also significant relationships between work-family conflict (strain-based) on job satisfaction, $\beta = -.14 \ p < .001$, and organisational time expectations on work-family conflict (strain-based) $\beta = .22 \ p < .001$. Although the 95% bias-corrected confidence intervals of the indirect effect via the mediator did not include zero, these results should be viewed with caution as the lower bound of the CI was low (-.01).
As the direct effect between organisation support and job satisfaction has already been established, \((\beta = .53, p < .001, 95\% \text{ CI } [.43, .62])\), the direct and indirect effects were tested together to investigate if work-family conflict (strain-based) mediated the relationship between organisation support and job satisfaction. The analysis revealed work-family conflict (strain-based) partially mediated the relationship between organisation support and job satisfaction, \(\beta = .25, p < .001, 95\% \text{ CI } [.20 \text{ to } .40]\). This model had a good fit to the data \(\chi^2(1693) = 3347.96, p < .001, \text{ CFI } = .94, \text{ RMSEA } = .04, 90\% \text{ CI } [.03, .05]\).

![Diagram](image_url)

**Figure 4.11.** Work-family conflict as a mediator between demand variables, organisation support, and job satisfaction.

**Family-work conflict (strain-based) as a mediator.**

To determine if family-work conflict mediated the relationship between family support, family demands, and family satisfaction, first of all the direct effects were tested and both family support and family demands met the criteria for mediation (see Figure 4.12). The results indicated family support, \(\beta = .37, p < .001; 95\% \text{ CI } [.28 \text{ to }
.46], and family demands, $\beta = -0.15, p < .001; 95\% \text{ CI } [-.07 \text{ to } -.21]$ were both associated with family satisfaction. This model had a good fit to the data $\chi^2(1699) = 3667.68, p < .001, \text{CFI} = .94, \text{RMSEA} = .04, 90\% \text{ CI } [.03, .05]$. When both the direct and indirect effects were tested together, family-work conflict partially mediated the relationship between family support and family satisfaction, $\beta = .33, p < .001; 95\% \text{ CI } [.02 \text{ to } .08]$ and fully mediated the relationship between family demands and family satisfaction, $\beta = -.06, p = .15; 95\% \text{ CI } [-.14 \text{ to } -.05]$. This model had a good fit to the data $\chi^2(1695) = 3402.82, p < .001, \text{CFI} = .94, \text{RMSEA} = .04, 90\% \text{ CI } [.03, .05]$. There were also significant negative relationships between family-work conflict and family satisfaction ($\beta = -.23 p < .001$) and family support and family-work conflict and family support ($\beta = -.19 p < .001$) and a significant positive relationship between family demands and family-work conflict ($\beta = .37, p < .001$).

*Figure 4.12.* Family-work conflict as a mediator between family support, family demands, and family satisfaction.

**Balance as a mediator.**

As there was no direct effect between balance and job satisfaction, only family satisfaction could be assessed, using balance as a mediator (see Figure 4.13). As demonstrated previously, family support $\rightarrow$ family satisfaction met the criteria for
mediation as the effect between X → Y did not contain zero $\beta = .31, p < .001; 95\% \text{ CI } [.23 \text{ to } .39]$. When both the direct and indirect effects were tested together, balance partially mediated the relationship between family support and family satisfaction ($\beta = .23, p < .001, 95\% \text{ CI } [.10 \text{ to } .25]$. There were also significant positive relationships between balance and family satisfaction ($\beta = .20, p < .001$) and family support and balance and family support ($\beta = .10, p < .05$).

**Figure 4.13.** Balance as a mediator between family support and family satisfaction.

**Summary of Results**

Frone’s (2003) four-fold taxonomy of work-life balance was tested in a full structural model and compared to two alternative models of work-life balance. All models fit the data well. The alternative model, which consisted of Frone’s four components, work-to-family conflict, family-to-work conflict, work-to-family enrichment, family-to-work enrichment, plus the balance component, was found to explain the relationships between the antecedent variables and work-life balance more fully, whereas the final model, which tested the balance variable (without conflict and enrichment), contributed much less variance to the outcome variables of job and family satisfaction.

The hypothesis that the demand variables (from both work and family domains) would be positively related to both directions of conflict was partially supported (see Figure 4.14). Demands originating from the family domain were positively related to
family-work conflict, and did not influence work-family conflict. Organisational time expectations led to less balance, and more conflict in the work-family direction. However, the hypothesis that demand variables would be negatively associated with both directions of enrichment was not supported. Perception of negative career consequences was not significantly related to any of the work-life balance components.

The hypothesis that resource variables would be positively associated with enrichment and balance variables and negatively associated with conflict variables was largely supported (see Figure 4.14). Supervisor support was positively associated with work-family enrichment; family support had a positive relationship with family-work enrichment and balance, and a negative relationship with work-family conflict strain, and family-work conflict strain. A supportive organisational culture had a positive relationship with work-family enrichment, family-work enrichment, and balance; and a negative relationship with work-family conflict strain. Colleague support was not significantly associated with any of the work-life balance components. The positive aspects of work-life balance (i.e., work-family enrichment and family-work enrichment) contributed the most variance to both job and family satisfaction when compared to the negative inter-role conflict.
Figure 4.14. Simplified final model of alternative model of work-life balance. Note: WFE = work-family enrichment, FWE = family work enrichment, WFC = work-family conflict, and FWC = family-work conflict.
When the components of work-life balance were tested as mediators between the antecedents (demands and resources) and the outcome variables (job satisfaction and family satisfaction), indirect effects were found for work-family enrichment, family-work enrichment, work-family conflict, balance, and family work conflict (see Figure 4.15). A supportive work-life culture, and direct supervisor support led to greater job satisfaction via increased work-family enrichment and decreased work family conflict. Similarly, more perceived family support led to greater family satisfaction, via increased family-work enrichment and decreased family-work conflict. Family demands led to decreased family satisfaction via increased family-work conflict. See Figure 4.15 for a final simplified model of mediation.
Figure 4.15. Simplified model of mediation analyses. Note: WFE = work-family enrichment, FWE = family-work enrichment, WFC = work-family conflict, and FWC = family-work conflict.
Discussion

The current study examined the antecedents and outcomes of work-life balance in a sample of Australian teachers. This study advanced the understanding of the linkages that exist between the work and family domains by providing a comprehensive model of work-life balance, which included antecedents and outcomes from both the work and family domain. There are only a few studies that have included conflict and enrichment, antecedents from work and family domain, and work and family outcomes in a structural model.

The main aim of this study was to test the merits of Frone’s model of work-life balance in a full structural model. The results supported Frone’s (2003) conceptualisation that models of work-life balance should include bi-directional (work-to-family and family-to-work) components of conflict and enrichment. The present study confirmed that conflict and enrichment were bi-directional, separate constructs that had different antecedents and outcomes (Aryee et al., 2005; Carlson et al., 2009; Frone, 2003; Lu et al., 2009). Although the data fitted Frone’s model reasonably well, there were some weak parts to the model; work-family conflict time-based and family-work conflict time-based were not significantly associated with either family or job satisfaction.

The addition of the balance variable in the alternative, work-life balance model added richness to the explanation of the complex phenomenon of work-life balance, as it captured unique influences of the antecedents. The balance variable accounted for the largest percentage of variance in the antecedents (35%). The third model tested, which only included the balance variable as a mediator, explained very little variance in either job or family satisfaction. This supports the concept that work-life balance is a complex multi-faceted construct, which cannot be adequately measured
by a single item measure or a single latent variable. This provides further support to
the research conducted by Grzywacz and Carlson (2007), who found that a single item
of work-life balance explained considerably less variance than the four components of
conflict and enrichment with both work and family outcomes.

The five components of work-life balance identified by this research had
different antecedents and outcomes. The hypothesis that demand variables from both
work and family domains would be positively related to the conflict variables and
negatively associated with enrichment was only partially supported. The demand
variables were positively related to conflict and negatively related to balance, but did
not influence work-family enrichment or family-work enrichment. These findings are
similar to those of Peeters et al. (2009), who found that it was possible to distinguish
between negative and positive processes when examining influences in work-life
balance research. Organisations where the norm was a hindrance work culture, and
which were characterised by increased organisation time expectations, and perceived
negative career consequences had a direct relationship with work-life conflict and
negative organisational outcomes such as burnout, whereas, a supportive culture was
related to greater work-life enrichment, less work-life conflict and greater employee
engagement.

This study also supports findings by Dikkers et al. (2007), who found that
employees who experienced high time demands and were expected to regularly work
overtime, experienced more inter-role conflict between work and family domains.
However, unlike Dikkers et al., the present study did not find a relationship between
perceived career consequences and work-family conflict or job satisfaction. Dikkers
et al. combined organisational time expectations and perceived career consequences
into one hindrance subscale; however, the results from the current study suggest that
they should be measured independently. Also, it might depend upon the sample utilised. The present study used teachers, and most teachers have limited possibilities for promotion, therefore, the advancement of their career may not register as being as important as the long hours they are expected to work. This is a somewhat unique point about work-life balance in teachers that has not been examined in previous studies.

The hypothesis that resource variables would be positively associated with enrichment and balance variables and negatively associated with conflict variables was largely supported. A supportive organisational culture predicted increased work-family enrichment and family-work enrichment, less work-family conflict, and greater perception of balance. Again, these findings support the research by Peeters et al. (2009), who found that a supportive work-family culture predicted less burnout through higher levels of enrichment and lower levels of conflict. Through the study, I also found that family support was positively associated with family-work enrichment and perception of balance; and negatively associated with family-work conflict. Nicklin and McNall (2012) and Wayne et al. (2006) also found that family support was significantly related to family-work enrichment.

When considering the outcomes of the five components of work-life balance, support was found for the source attribution theory (Shockley & Singla, 2011), as opposed to the more popular domain specificity theory (Bellavia & Frone, 2005). According to the source attribution perspective, when an individual experiences work-family conflict or family-work conflict, they are more likely to blame the work or family role, and become dissatisfied with the role that caused the conflict in the first place (Shockley & Singla, 2011). Similarly, when an individual experiences enrichment, which originates in either the work or family domain, they are likely to
feel more satisfied with the role in which this occurred (Kinnunen et al., 2006; Shockley & Singla, 2011). I found that work-family conflict was negatively related to job satisfaction, family-work conflict was negatively related to family satisfaction, higher work-family enrichment was associated with increased job satisfaction, and higher family-work enrichment was associated with increased family satisfaction.

**Work-life balance as a mediator.**

Another aim of this study was to examine to what extent work-life balance mediated the impact that demands (both work and family) and resources (originating from the work and family domains) have on job and family satisfaction. The hypothesis that work-family enrichment would mediate the relationship between workplace resources and job satisfaction was supported. The results demonstrated that work-family enrichment played a partial mediating role between organisational support and job satisfaction, and a fully mediating role between supervisor support and job satisfaction. However, the indirect effect of work-family enrichment between supervisor support and job satisfaction should be viewed with caution, as the effect sizes were much smaller than the indirect effect of work-family enrichment between organisational support and job satisfaction. I found that the relationship between organisational support and work-family enrichment was more than four times stronger than the relationship between supervisor support and work-family enrichment. Kossek et al. (2011) reported that work-family specific support had a stronger relationship to work-family conflict and job satisfaction than general support, such as supervisor support.

Managers and organisations that are considerate and sympathetic towards their employees’ family and private lives could generate positive experiences, which would then lead to beneficial outcomes in the work domain (job satisfaction). Hammer et al.
(2009) found that organisation support, specifically family-supportive supervisor behaviours, was significantly related to work-family enrichment, work-family conflict, and job satisfaction, over and above general supervisor support. Hammer et al. only tested for direct effects between these variables, and did not consider the mediating effects that conflict and enrichment would have on the relationship between organisation support and job satisfaction. From a theoretical point of view, the results are in line with positive organisational scholarship theory and social exchange theory. Organisations that provide work-family support for their employees set the scene for employees to feel that their work is meaningful, that they are part of a work community. This creates a positive environment, in which employees are more likely to be satisfied with their jobs, and the organisation is rewarded by having employees who reciprocate by giving back. Taken together, these findings are consistent with the research by Nicklin and McNall (2012), who found that work-family enrichment mediated the relationship between perceived supervisor support and job satisfaction, and Peeters et al. (2009), who found that work-family enrichment partially mediated the relationship between a supportive work-family culture and engagement.

Similarly, family support was found to have both a direct and indirect effect (through family-work enrichment) on family satisfaction. Individuals who received resources, such as emotional and practical assistance at home, would feel happier and this would assist them manage their work role (Wayne et al., 2006). This result supports previous research, which found that family-work enrichment partially mediated the relationship between family support and family satisfaction (Nicklin & McNall, 2012), and family involvement and family satisfaction (Allis & O'Driscoll, 2008). On the other hand, Michel et al. (2009), in their meta-analysis, found that family support was the greatest predictor of family satisfaction. However, Michel et
al. only examined the cross-domain linkage between family support and job satisfaction via family-work conflict.

Finally, through the study I found that family demands had a direct and indirect effect (via family-work conflict) on family satisfaction. These findings were similar to Boyar et al. (2007), who found that university employees struggled with family-work conflict when the demands from the family were high. Consistent with the findings by Lapierre et al. (2008) and Brough et al (2005), I found a negative relationship between family-work conflict and family satisfaction, which was stronger than the relationship between work-family conflict and job satisfaction ($r = -.27$ and $r = -.18$, respectively). This further reinforces the need to include family antecedents and outcomes when researching work-life balance.

Implications.

From a practical point of view these results are important. As conflict, enrichment, and balance are distinct constructs, identifying antecedents and outcomes of each will help expand the nomological net of the work-family interface. This would assist organisations to find solutions to decrease conflict, increase enrichment, and support their employees to balance their work and family demands. As noted in Study 1, the salience or importance of work or non-work to an individual is an important issue to consider in any work-life research. Perhaps enriching the work-family and family-work experience would help to address this issue. As individual’s priorities change throughout their working lives, having a supervisor plus an organisation that supports their non-work needs would have its advantages for both the employee and employer. For example, an employee may like the opportunity to do some work from home because they have young dependent children or are temporarily taking care of an elderly relative. Both of these situations are time-
limited. On the other hand, an employee may want to work more hours because they are supporting their child through university. According to social exchange theory, once the employee finds that they are supported in these endeavours, they are more likely to reciprocate by putting extra effort into their work, and being more committed to the organisation, so it becomes a win-win situation.

**Limitations.**

There are some limitations to this study that should be addressed. Although this study demonstrated that a supportive work-family organisational culture was associated with job satisfaction, because of the influence that it has on enriching the work-family interface, reverse causation cannot be ruled out. Having high levels of job satisfaction may enrich the work-family interface. Similarly, this study found that greater levels of family support predicted greater family satisfaction because of the enriching effect that family skills brings to the workplace, again reverse causation cannot be dismissed; high levels of family satisfaction could also enrich the work-family interface. This limitation will be addressed in Study 3 using longitudinal data to examine possible reverse causation and reciprocal effects.
Chapter 5

Study 3: Longitudinal Relationships between Support, Work-Life Balance, and Job and Family Satisfaction

Most of the studies that have examined the impact of work-life balance have utilised cross-sectional data. Longitudinal research allows the researcher to explore the strength, magnitude, and direction of the cross-lagged relationships between variables of interest, and helps to ascertain whether these relationships remain stable across time.

In Study 1, I validated a work-life balance measure, that included five components of work-life balance (work-family conflict, family-work conflict, work-family enrichment, family-work enrichment, and balance), and in Study 2, I tested the antecedents and consequences of the work-life balance measure in a full structural model, using cross-sectional data. The present study extends the findings of Study 2 by using a longitudinal design to test the stability of the measures over time, and explore the cross-lagged relations between the key resources of individual support, work-life balance, and job and family satisfaction, as well as examine reverse causality models and reciprocal causality models. There has been a propensity for researchers to examine work-life balance from the negative perspective. Most longitudinal studies to date have examined the antecedents and consequences of work-life conflict and the potential negative effects on employees (e.g., burnout) and organisations (e.g., turnover), rather than viewing the positive effects of combining work and non-work roles. This study examined resources from the work (organisational support for non-work needs) and family (supportive family environment) domains and assessed how they relate to work-life balance and well-
being. This approach is consistent with the enrichment perspective that work and non-
work can be mutually beneficial (Carlson et al., 2006; Greenhaus & Powell, 2006).

**Introduction**

Until recently, most of the work-life literature has suggested ways that
organisations can decrease work-life conflict in order to have better organisational and
employee outcomes. Although researchers have identified the benefits of combining
work and family roles, the majority of researchers still tend to identify the difficulties
that occur (Hammer et al., 2005), and have focused on negative aspects (Innstrand,
Langballe, Espnes, Falkum, & Aasland, 2008). The negative approach to work-life
balance assumes that “work is a necessary evil to support non-work activities”
(Grawitch & Barber, 2010, p. 129). This reductionist perspective has led
organisations to implement interventions that decrease demands (e.g., childcare,
parental leave), with no apparent benefits for the organisation (Grawitch & Barber,
2010), rather than concentrating efforts to enrich employees’ work and family roles.
Furthermore, if the focus remains on conflict (e.g., the negative role that work has on
non-work roles), rather than enrichment (e.g., enhancing the positive role that work
has on non-work), then further understanding of the positives of combining work and
non-work remain limited (Grawitch & Barber, 2010). More research is needed to
assess whether work-family enrichment is important (Wayne et al., 2006), and to
provide additional evidence that organisations can use to help them make decisions in
this area (McNall, Masuda, et al., 2010).

As stated in previous chapters, a comprehensive analysis of the work-family
interaction should include bi-directional conflict and enrichment components,
acknowledging that work can interfere with/benefit the family, and the family can
interfere with/benefit work (Frone, 2003; Greenhaus & Powell, 2006; Innstrand et al.,
Furthermore, examining conflict and enrichment in combination would give a better understanding of the role combination and dynamics between work and family (Innstrand et al., 2009; Nicklin & McNall, 2012). As conflict and enrichment have been demonstrated to be independent constructs, with unique, but not mutually exclusive antecedents and outcomes, it is possible to experience simultaneously: (a) high levels of both, (b) high level of one and a low level of the other, or (c) low levels of both (Wayne et al., 2004). Therefore, a complete understanding of the work/family interface should include both directions (work-to-family and family-to-work) of conflict and enrichment (Byron, 2005; Ford et al., 2007; Frone, 2003; Innstrand et al., 2009).

Theoretical Background

Although my focus is on the positive perspective of role combination (enrichment), I also recognise the negative effects of inter-role conflict. Therefore, the theoretical framework for this study will integrate two complementary theories to better understand the complexity of the work-family interface: the conservation of resources theory (Hobfoll, 1989, 2001) and the resource theory of social exchange (Foa & Foa, 1976, 1980). Both have been identified as being particularly pertinent to the occupational and organisational field of psychology (Gorgievski, Halbesleben, & Bakker, 2011).

Conservation of resources theory (COR; Hobfoll, 1989, 2001), which has been discussed in detail in previous chapters, provides a lens for viewing both enrichment and conflict between work and family domains. The basic premise of conservation of resources theory is that “people strive to retain, protect and build resources and that what is threatening to them is the potential or actual loss of these valued resources” (Hobfoll, 1989, p. 513). Hobfoll (2002) explains that resources are things that are
valued for what they are, such as relationships, health, and self-esteem, or act as a means by which the individual can obtain important outcomes, such as social support and money. The conservation of resources theory posits that those with fewer resources would be more vulnerable to resource loss (loss spirals), and those with more resources are less vulnerable to resource loss; therefore, more able to gain more resources (Hobfoll, 2001). There is the possibility that these gain spirals could lead to reciprocal effects between resources and well-being (Hakanen et al., 2011), with the likelihood that enrichment across domains could occur (Hobfoll, 2002).

Social support is viewed as a key resource in the social environment, and individuals who receive support are more likely to experience better mental health and be more resistant to stressful situations (Hobfoll, 2002). The resource theory of social exchange focuses on the types of resources being exchanged within a social relationship, and which resources differ depending on the type of relationship; these resources include love, status, services, information, goods, and money (Foa & Foa, 1980). The basic premise of this theory is that each interpersonal behaviour is dependent on giving or taking away certain resources, which leads to either reciprocation (giving) or retaliation (withholding) from one person to the other (Gorgievski et al., 2011). From an organisational perspective, resources are generally collapsed into two types: economic, (i.e., monetary) and socio-emotional, which address social and self-esteem needs that lead an individual to feel valued and treated with dignity (Cropanzano & Mitchell, 2005b). Social support, perceived organisational support, in particular, is a social exchange mechanism (Aryee et al., 2005) that fits within the social exchange framework. When employees perceive that their organisation and managers are interested in assisting them combine their work and non-work roles, then they perceive that their organisation as being supportive and
feel obligated to reciprocate with positive feelings towards their jobs and organisations (Aryee et al., 2005; Tang, Siu, & Cheung, 2012; Wayne et al., 2006).

Creating a positive and supportive work environment offers employees resources that would enhance both work and family domains (Hunter, Perry, Carlson, & Smith, 2010). Furthermore, this cooperative reciprocation between employee and their organisation can generate a motivational process, such as work-family enrichment, which can then lead to job satisfaction (Tang et al., 2012) and satisfaction within the family domain (Hunter et al., 2010). In addition, these bundles of resources tend to hold across time, whereas stress tends to be more transitory (Hobfoll, 2002).

Support in the workplace can be viewed as direct supervisor support or perceived organisational support, whereas non-work support is generally conceptualised as family support (Grawitch & Barber, 2010). Support from the organisation may mean that the employee has a choice of how and where they work, such as the use of a company laptop and the ability to work from home (Grawitch & Barber, 2010). Many workplace interventions and family friendly policies rely on supervisor support to succeed. Social support is also part of an exchange between two parties, which leads to the accrual of goodwill (Ito & Brotheridge, 2003). Supervisors can allocate resources to their employee, but can also put in a good word for them to the organisation’s hierarchy (Ito & Brotheridge, 2003). Hunter et al. (2010) found social support at work (from team support) was related to family-work enrichment, which then lead to increased family satisfaction. Similarly, support at home, such as the presence of intimate others with whom the individual can confide and debrief after a stressful day at work, is seen as a vital form of support (Hobfoll, 2002).
Longitudinal Studies

Due to the limitations of the cross-sectional research design, there has been an increase in popularity for longitudinal designs within psychology (Taris & Kompier, 2003). In a review of longitudinal studies that examined the direction of the relationship between work characteristics and mental health, some methodological design issues were identified (de Lange et al., 2004). First, some longitudinal designs did not use the same variables at all time points, or did not use the same respondents. Second, not all studies utilised structural equation modelling for testing effects, which is able to estimate different types of causation simultaneously in multi-variable and multi-wave models. Furthermore, if reciprocal effects are found, structural equation modelling is able to determine whether the normal cross-lagged or reversed cross-lagged relationship is the most causally dominant. Third, most longitudinal studies did not address the issue of appropriate time lags in their studies, or give a rationale for the time lag that was chosen.

There are some misunderstandings attached to longitudinal designs within occupational health psychology (Taris & Kompier, 2003). First, causality cannot be proven using longitudinal designs; causality can be strengthened, but the possibility of confounding variables cannot be excluded from this association. Second, many longitudinal studies tend to replicate existing questions, theories, and findings, by providing longitudinal replications rather than exploring new ideas and generating new theories. Essentially, a two-wave longitudinal design is a cross-sectional study with a repeated measure of the outcome variable. There is also a reluctance to examine reciprocal effects between variables; for example, “how likely is it that the designated ‘outcome’ variable affects the ‘causal’ variable” (Taris & Kompier, 2003, p. 3).
There have been very few longitudinal studies that have examined reversed and reciprocal causal relationships (de Lange et al., 2004; Innstrand et al., 2008). Zapf, Dormann, and Frese (1996), in their review of longitudinal studies, found that only 15 of the 39 longitudinal studies tested reversed causal relationships, and of these, seven found some effects.

**Longitudinal studies of work-life conflict and satisfaction.**

Work-family conflict and its association with job satisfaction is one of the most studied outcomes in organisational sciences (Grandey, Cordeiro, & Crouter, 2005). Most people perceive that work interferes with family, more than family interferes with work, and this is true for both genders (Frone, Russell, & Cooper, 1992; Kinnunen, Geurts, & Mauno, 2004). Although there have been several meta-analyses and reviews that examined the link between work-family conflict and satisfaction (Allen et al., 2000; Kossek & Ozeki, 1998), most of these have been based on cross-sectional data; therefore, causal direction of the relationships could not be assessed adequately (Kinnunen et al., 2004). Allen et al. (2000) indicated that work-family conflict was an antecedent of (a) work-related outcomes, such as job satisfaction and turnover, (b) non-work-related outcomes, such as family and life satisfaction, and (c) stress-related outcomes, such as psychological strain and burnout.

Most studies that examine the relationship between work-family conflict and job satisfaction assume that work-family conflict is an antecedent of job satisfaction. “Job satisfaction is an affective appraisal of one’s job” (Grandey et al., 2005, p. 6); therefore, if a situation (i.e., work) is perceived as threatening something that is perceived as valuable (i.e., family), an individual would be more likely to develop a negative attitude toward the source of the threat. Therefore, Grandey et al. (2005)
suggested that work-family conflict, rather than family-work conflict, was predictive of job satisfaction.

In a longitudinal study, Grandey et al. (2005) hypothesised that work-family conflict would predict the change in job satisfaction over-time, after controlling for family-work conflict and prior job satisfaction. Participants for the study were 174 dual earner couples who had two children living at home. Bivariate correlations and hierarchal regression analyses were used to determine the relationships among work-family conflict, family-work conflict, and job satisfaction. The results from this study confirmed the hypothesis that when work was perceived as interfering with family time and energy, employees become dissatisfied with their jobs, and this was more so for women than men. The study by Grandey et al. provided support for the relationship between work-family conflict and job satisfaction over time, beyond family-work conflict and prior job satisfaction. A limitation in the study was that family satisfaction was not measured, nor was there any reverse causation analyses conducted.

Kinnunen et al. (2004), using a sample of Finnish employees (N = 425; average age = 43), tested if there was a longitudinal relationship between work-family conflict and satisfaction over time, whether there were gender differences, and whether job satisfaction was a predictor of work-family conflict. They found that the relationship between work-family conflict and job satisfaction was relatively stable across time. However, they envisaged that it would be difficult to identify reverse causation effects, if they existed, because work-family conflict would remain relatively stable over a one year time period. The authors found that women who perceived high levels of work-family conflict at T1 were more likely to experience job dissatisfaction at T2, whereas men who experienced low marital satisfaction at T1
were more likely to experience higher levels of work-family conflict at T2. These findings suggest that work-family conflict may be more detrimental to women’s job satisfaction when compared to men. However, for men, increased marital and parental distress were precursors to an increased level of work-family conflict over time. This finding suggests that strain may drain men’s resources, making it more difficult to be able to cope with work-family conflict.

The strengths of the study by Kinnunen et al. (2004) were the use of longitudinal data and the use of several background factors; they tested the reverse causality between work-family conflict and satisfaction; and they took gender into account and analysed models separately for men and women. Limitations of this study were that they did not take into account the influence that family-work conflict may have on satisfaction or the effect that enrichment may have on satisfaction. Further limitation was that hierarchical regression analyses were used in this study; therefore, all variables could not be tested simultaneously.

Using structural equation modelling, Brough, O’Driscoll, and Kalliath (2005) conducted a longitudinal study to examine if workplace resources (e.g., family-friendly policies and support to meet family needs) and family resources (e.g., sharing household chores) were able to predict work-family conflict, family-work conflict, and job and family satisfaction. The participants in the matched Time 1-Time 2 data set were 398 employed men and women, who ranged in age from 16 – 74 years (average age = 38 years). The average hours worked per week was 43.5, and approximately two thirds of participants indicated that their partners worked full-time. Brough et al. found that workplace resources at T1 significantly predicted family-work conflict (T1), and significantly predicted both family satisfaction and job satisfaction at T2. However, family resources (T1) did not predict either direction of
conflict, but was a significant predictor of family satisfaction at T2. Furthermore, work-family conflict at T2 predicted job satisfaction at T2, but did not influence family satisfaction. Similarly, family-work conflict at T2 predicted greater family satisfaction at T2, but did not influence job satisfaction.

These results suggest that work-family conflict reduced job satisfaction, whilst family-work conflict reduced family satisfaction (Brough et al., 2005). This study also found that the relationship between family-work conflict and family satisfaction ($\beta = -.29$) was nearly twice as strong as the relationship between work-family conflict and job satisfaction ($\beta = -.16$). The positive link between workplace resources and both job and family satisfaction over time suggests that providing employees with supportive workplace practices increases their well-being in both the work and family domains. Although family resources were positively linked to family satisfaction over time, they were not influential in reducing either work-family or family-work conflict. However, this could be due to the response format, as each respondent was asked to indicate the frequency of use for each resource (all instrumental type resources), and the list did not include emotional support from family, which has been shown to be an important element of family support (Lu, 2011). A limitation acknowledged by Brough et al. was that reverse causality pathways (i.e., that job or family satisfaction could predict conflict) were not tested, and that it would be beneficial for future research to do so.

**Longitudinal studies of work-life enrichment and satisfaction.**

Research that focuses on the positive side (i.e., enrichment) is gaining momentum; however, most empirical evidence has been based on cross-sectional designs (Lu, 2011). While there have been a few longitudinal studies on work-family
conflict, there has only been two that have looked at the positive side of the work-life interface (Hakanen et al., 2011; Lu, 2011).

Hakanen et al. (2011) conducted a longitudinal study to investigate whether job resources predicted work engagement through work-family enrichment, and similarly, whether family resources predicted marital satisfaction through family-work enrichment. They also investigated reciprocal relationships between job and home resources, both directions of enrichment, and well-being in work and home domains. The aims of their study were to examine how positive and motivating resources from work and home domains predicted enrichment in both domains, whether these then led to further positive outcomes (gain spirals), and to consider whether these positive gain spirals held over time.

Participants in the study were 1,632 Finnish dentists (72.4% women and 27.6% men), average age at T1 was 44.9 (SD = 8.62). Three different types of job resources were assessed using the Dentists’ Experienced Job Resources Scale (Gorter, te Brake, Eijkman, & Hoogstraten, 2006). This scale was specific to dentists, and included a total of eight subscales, three of which were used in this particular study: craftsmanship, pride in the profession, and direct and long-term results. Family resources were assessed by using four social support items that measured emotional, instrumental, and appraisal support from partner, family member, or friend. Work engagement was assessed by using the 18-item Utrecht Work Engagement Scale, which included three subscales: vigour, dedication, and absorption (Schaufeli, Bakker, & Salanova, 2006). Marital satisfaction was measured using a 5-item scale from the Investment Model Scale, developed by Rusbult, Martz, and Agnew (1998). Work-family enrichment (4-items) and family-work enrichment (3-items) were adapted from a scale used by Grzywacz and Marks (2000). Example items from this scale were
“The things you do at work help you deal with personal and practical issues at home” and “Your home life helps you relax and feel ready for the next day’s work” (Hakanen et al., 2011, p. 15).

In order to investigate the cross-lagged longitudinal analysis, structural equation modelling was utilised. Hakanen et al. (2011) applied a two-wave panel design, three years apart, to compare several alternative models. As it is only possible to test for partial mediation in a two-wave study, Hakenen et al. tested three models: first, the causal relationship between predictors (job and home resources) and mediators (work-family enrichment and family-work enrichment) and second, the causal relationships between mediators and outcome variables (work-engagement and marital satisfaction). Then, for each of these models, they included several alternative models to examine causal, reversed, and reciprocal effects. The latter model allowed the researchers to test the hypothesised gain spirals.

In all three models, the reciprocal model was the best fitting model (Hakanen et al., 2011). The main findings from this study were: a) job resources at T1 predicted future work-family enrichment, which then predicted work engagement, b) although family resources did not predict future family-work enrichment, family-work enrichment had a positive influence on both work-engagement and marital satisfaction over time, c) work-engagement and work-family enrichment reciprocally predicted each other over time, d) family-work enrichment at T1 predicted future marital satisfaction at T2, and e) the direct effects of job resources and work-engagement and family resources and marital satisfaction were reciprocal over time. These findings demonstrated that positive feedback loops exist in work and family domains, and that the enrichment process plays a central role.
This study by Hakanen et al. (2011) reinforced the concept of gain spirals (Hobfoll, 1989, 2001), suggesting that long-term positive cycles are found in both work and family domains. An interesting implication was the notion that family-work enrichment could influence future family support; that is, the family role enriched and improved the work role, and led to greater satisfaction in the family role. A limitation noted by Hakanen et al. was that job resources and home resources in this study were not quite balanced. Their job resources scale measured task-level job characteristics, whilst home resources examined support from the family domain. Another limitation was that the focus was only on the positive interaction between work and family domains, therefore; there is a need for longitudinal studies to simultaneously examine “both the positive and negative bi-directional interaction between work and family” (Hakanen et al., 2011, p. 27).

Lu (2011) used a longitudinal study to examine the reciprocal relationships of work and family support, work-family enrichment, and job and family satisfaction in a Chinese population. Lu hypothesised that work resources (supervisor support) would be positively related to work-family enrichment and job satisfaction, and that family support would be positively related to family-work enrichment and family satisfaction. In line with Hobfoll’s (1989) conservation of resources theory and Marks’ (1977) expansionist theory, which emphasised that managing multiple roles could create more energy and further enhance the availability of resources, Lu proposed that a reversed causality path could exist: job satisfaction could have a lagged positive effect on work-family enrichment and supervisor support; and family satisfaction could have a lagged positive effect on family-work enrichment and family support. Lu tested two separate models (work and family variables) using structural equation modelling. The first model utilised work-specific variables (i.e., supervisor
support, work-family enrichment, and job satisfaction) and the second model utilised family-specific variables (i.e., family-support, family-work enrichment, and family satisfaction). Four competing models were fitted to the data: a stability model, causality model, reversed causality model, and reciprocal model. The reciprocal model fit the data best for the work related variables. These results suggested that supervisor support, work-family enrichment, and job satisfaction were mutually related to one another over time (Lu, 2011). Similar results were found for the family model: the reciprocal model was the best fitting model, which demonstrated that family support, family-work enrichment, and family satisfaction were mutually related to each other over time.

The strength of Lu’s (2011) study was that this was one of the first to examine antecedents and consequences of work-family enrichment and family-work enrichment in a three wave longitudinal study. Lu found that work-family enrichment was both an antecedent and consequence of job satisfaction, and similarly, family-work enrichment was an antecedent and consequence of family satisfaction. Lu also found that “…work and family role resources, enrichment, and role satisfaction were all quite stable experiences” (p. 396), over a one-year time lag. Lu suggested that organisations that provided family-supportive resources could initiate and maintain a “constructive circle of support → enrichment → satisfaction” (p. 397). Lu concluded that family resources have been generally disregarded in work-life research, and acquiring support from family members was just as important. A limitation in Lu’s study was that it was limited to Chinese employees, who may have had more family support than Western employees. Inter-role conflict was not considered in this research, and it has been shown previously that employees can experience conflict and enrichment simultaneously. Also, analysing the two models separately (work and
family models) might provide different results from a fully saturated model that included both directions of enrichment, along with variables from both work and family domains.

**Studies Linking Support, Work-Life Balance, and Satisfaction**

In a study which utilised 543 participants from mainland China, Tang, Siu, and Cheung (2012) investigated the relationships between work support, work-family enrichment, and job satisfaction. Tang et al. adopted a social exchange framework to explain the motivational processes contained within their model, which posited that employees and their employers were “two exchange counterparts” (p. 3). Therefore, an employee who feels that their supervisors and organisation care about their work-life balance would be more likely to reciprocate and feel positive and satisfied with their jobs and workplace. The hypothesis that work support would lead to increased work-family enrichment and greater job satisfaction was supported. A limitation of the study was that they did not include work-family conflict. Measuring both work-family conflict and enrichment in a longitudinal study would have provided a more comprehensive picture of the work-life interface.

Odle-Dusseau, Britt, and Greene-Shortridge (2012) conducted a longitudinal study to examine whether perceptions of family supportive supervisor behaviours would have a direct effect on job performance, job satisfaction, and intention to leave. Furthermore, Odle-Dusseau et al. wanted to see if bi-directional work-family conflict and work-family enrichment would mediate the relationship between family supportive supervisor behaviours and job attitudes. Four hundred and one participants responded at T1, and a matched sample five months later at T2 included a final data set of 174 participants. The participants were recruited from a large metropolitan hospital in the south-east United States. The majority were female (72%), with an
average age of 40 years (range: 20 – 68 years). Measures used in this study included four items from the Family Supportive Supervisor Behaviour scale (FSSB), which assessed how family supportive their supervisors were in the areas of emotional and instrumental support; work-family conflict and family-work conflict, measured using eight items from the 12-item scale developed by Frone and Yardley (1996); work-family enrichment and family-work enrichment, with eight items from the 18-item scale developed by Carlson et al. (2006); and job satisfaction, assessed by two items from the Michigan Organizational Assessment Questionnaire (Cammann et al., 1979).

Structural equation modelling was used to assess various path models, with family supportive supervisor behaviours and both directions of work-family conflict and work-family enrichment being measured at T1, and job satisfaction, job performance, and intention to leave being measured at T2 (Odle-Dusseau et al., 2012). The results of the analyses revealed that family supportive supervisor behaviours at T1 significantly predicted job satisfaction at T2 ($\beta = .34, p < .05$). Work-family enrichment was found to partially mediate the relationship between FSSB and organisational commitment and intention to leave; however, there was no mediation effect for work-family conflict on any of the outcome variables. The positive effects that family supportive supervisor behaviours had on work-family enrichment, which then predicted job performance and attitudes, supported the resource gain spirals from Hobfoll’s conservation of resources theory. Therefore, when employees perceived that their supervisor was supportive of their non-work needs, they were more likely to experience work-family enrichment, which predicted increased job performance and attitudes over time.

A limitation identified by Odle-Dusseau et al. (2012) was that most of the sample was female; however, this was representative of the hospital industry, as it is
more common for women to make up the majority of health care professions. The strengths of this study were that they were the first to examine the longitudinal effects of a supportive organisational culture on various work outcomes over time. This study provided a conceptual model of the associations among family supportive supervisor behaviours, work-family conflict and enrichment, and work related outcomes. Odle-Dusseau et al. suggested that future research should replicate these findings, as they found that family supportive supervisor behaviours led to increased performance and satisfaction through positive experiences of work-family enrichment rather than via a reduction in work-family conflict.

**Aims of Present Study**

The first aim of the present study was to confirm the five components of the latent work-life balance structure, identified in Study 2 on a second sample (i.e., on the T2 data). These components include work-family enrichment, family-work enrichment, work-family conflict, family-work conflict, and balance.

Predominantly, work-life research (a) has been dominated by cross-sectional research designs, (b) investigated either the outcomes or the predictors of the work-family interaction, rather than the whole spectrum of antecedents and consequences, (c) focused mainly on the work-to-family influence, with limited interest in the contribution of the family-to-work influence, and (d) concentrated on the conflict side, although there has been a recent move to incorporate the positive side of the work-life interaction (e.g., Hakanen et al., 2011). Therefore, the second aim of the present study was to investigate the longitudinal associations of both the positive and negative sides of the work-life interface, by testing the antecedents and outcomes of work-life balance from both the work-family and family-work directions. Furthermore, few longitudinal studies in organisational psychology have explored reversed and
reciprocal causal relationships (de Lange et al., 2004); therefore, I will test the
stability model, the standard causal model, the reverse causal model, and the
reciprocal causal model over time, to assess the effects that resources from both the
workplace and home contribute to work-life balance and job and family satisfaction.

A third aim of this study was to test whether the components of work-life
balance (i.e., conflict, enrichment, and balance) would mediate the relationship
between support from the workplace and family (i.e., organisational support for non-
work needs and family support) and job and family satisfaction.

Method

Participants and Procedure

The sample consisted of the same teachers from South East Queensland public
schools, whose results were reported in the cross-sectional analyses. The one-year
time lag was chosen so that the survey could be administered at the same time during
the first semester of teaching. As Semester 1 in the teaching calendar follows an
extended summer break, a shorter time lag may have clashed with examination
periods or end of year commitments. A one-year time lag was considered sufficient
for changes to occur in the variables being considered. A one-year time has been
found to be preferable to a longer time interval (e.g., a 2-year interval), in order to
control for the variations in teachers’ work load during the school year (Taris,
Kompier, De Lange, Schaufeli, & Schreurs, 2003).

In both phases of the study, participants received a cover letter stating that
participation was voluntary and assurances that their responses would be kept
confidential. At both time points, questionnaires were posted to all employees by the
internal mail systems in each school. The questionnaires were then returned in a
sealed pre-paid envelope directly to the research team at Griffith University.
665 useable questionnaires were returned. Time 2 questionnaires were matched with those from T1, producing a matched T1-T2 data set of $N = 229$.

These respondents consisted of 161 women (70.3%) and 68 men (29.7%), with ages ranging from 21 to 64 years ($M = 42.3, SD = 9.26$) at T1. A majority of participants was married or living with a partner ($N = 191, 83.4$%), while other participants were either single ($N = 20, 8.7$%), or separated or divorced ($N = 18, 7.9$%). There were 131 participants (57.1%) who indicated that they had dependent children living with them. Most participants were employed full-time ($N = 190, 83.0$%), whilst 39 indicated that they were in part-time employment (17.0%). Participants reported that they worked an average of 44.60 hours per week ($SD = 12.83$), ranging from 15 to 70 hours per week.

**Attrition analysis**

An attrition analysis was conducted to determine if there was any response bias between the *stayers* (participants who completed both T1 and T2 surveys) and the *drop-outs* (participants who completed T1 only). This analysis determines whether there are any differences in demographics or research variables by those who stay and those who drop-out of a study (De Lange, Taris, Kompier, Houtman, & Bongers, 2003).

In order to assess whether the T1 to T2 sample was subject to any selection bias, a series of MANOVAs and chi-squared analyses (with Bonferroni adjustments) was conducted to examine whether there were any significant differences on research variables (i.e., organisational support, family support, work-family enrichment, family-work enrichment, work-family conflict, family-work conflict, balance, and job and family satisfaction) between T2 stayers and T2 dropouts. The results indicated there was no statistical difference between stayers and dropouts on the combined
dependent variables, $F(12, 596) = 1.23, p = .26$; Wilks Lambda = .98; partial eta squared = .02. When the results for dependent variables were considered separately, none of the variables reached statistical significance, when using a Bonferroni adjusted alpha level of .005. Further, there were no significant differences in age or gender between stayers and dropouts. This analysis indicted there was likely to be little selection bias in the T1 to T2 sample when compared to T1 only sample.

**Measures**

Participants completed scales at T2 to measure organisational support, family support, work-family enrichment, family-work enrichment, work-family conflict, family-work conflict, balance, and job and family satisfaction. The description of each of these scales was reported in Study 1. The demographics that were collected were the same as those measured for Study 1. Summary data and internal reliability coefficients for all scales at T1 and T2 are reported in Table 5.1 ($N = 229$).

**Results**

**Statistical analyses.**

The first step in the analysis was to confirm the underlying factor structure of the work-life balance latent variables on the T2 data. The data were subjected to CFA using maximum likelihood estimation available within AMOS 20 software. Similar to Study 1 and Study 2, I examined several goodness of fit statistics, which included the chi-square statistic ($\chi^2$), Comparative Fit Index (CFI), Tucker Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and the $\chi^2/df$ statistic. Furthermore, when comparing competing models, it is also recommended that an appropriate predictive fit index such as Akaike’s Information Criterion (AIC; Akaike, 1987) be reported (Worthington & Whittaker, 2006). The AIC is used to compare non-nested models estimated with the same data and indicates which model is the
most parsimonious (Hooper, Coughlan, & Mullen, 2008). As this index is not scaled from 0 – 1, there is no recommended cut-off; however, the model that produces the smallest value is considered the more superior and most parsimonious.

In order to investigate the cross-lagged analyses, covariance structural equation modelling using maximum likelihood estimation was used. Structural equation modelling is considered to be the preferred method for analysing cross-lagged panel designs (Little, Preacher, Selig, & Card, 2007). In particular, CFA of the longitudinal measurement model addresses validity-related questions: (a) Are the constructs equivalent across time? (b) Are within- and cross-occasion associations amongst the variables stable or different over time? (c) Are the means and variances of the variables stable or different over time (Little et al., 2007, p. 357)? In longitudinal panel models, it is advisable that the residuals are allowed to correlate across time, because it is assumed that the item-specific component will covary with itself at different measurement occasions (Lang, Bliese, & Lang, 2011). Therefore, the residual errors of the items in job and family satisfaction were allowed to covary between T1 and T2.

I tested whether changes in work-life balance (i.e., bi-directions of conflict and enrichment and balance) mediate between changes in organisation and family support and changes in job and family satisfaction. As it is not possible to test for full mediation using data from a two-wave design, (i.e., A1 and C3 is mediated by B2) these causal relationships can be tested separately, as B2 does not precede C3 in time (Taris & Kompier, 2006). Taris and Kompier (2006) state “As mediation is a causal chain involving at least two causal relations (i.e., A>B and B>C) …. partial mediation applies if both links of the presumed causal chain A>B>C are confirmed; the product of the two respective lagged effects provides an estimate of the strength of the
meditational effect” (p. 468). Therefore, similar to the process used by Hakanen et al. (2011), three separate models will be run to test for partial mediation (a) predictors (family support and organisational support) to mediators (work-life balance components) (b) predictors to outcomes (job and family satisfaction), and (c) mediators to outcomes. Using this process I can test the antecedents and consequences of work-life balance components over time.

**Confirmation of work-life balance latent variable.**

Before the main analyses, I repeated the analyses from Study 1 using the T2 data to test for discriminant validity of all components of work-life balance, and to confirm the work-life balance latent variable. First, I conducted a CFA to test whether the five components of work-life balance loaded on to their respective hypothesised factors: work-family enrichment (9 items), family-work enrichment (9 items), work-family conflict strain-based (3 items), work-family conflict time-based (3 items), family-work conflict strain-based (3 items), family-work conflict time-based (3 items) and balance (4 items). The fit statistics for this analysis, $\chi^2(493) = 845.37, p < .001$, $\chi^2/df = 1.72$, CFI = .95, TLI = .94, RMSEA = .06, 90% CI [.05, .06], provided an acceptable fit to the data. This model provided validation that the latent variable balance was a distinct construct from work-family conflict and work-family enrichment, which was tested initially in Study 1.

The second analysis tested a 2nd order CFA to determine whether these data could be represented by a single latent factor, labelled work-life balance; thus, confirming the findings of Study 1. This second model assumed that all items loaded onto their hypothesised factors, which then loaded onto a 2nd order latent variable of work-life balance (see Figure 5.1). The fit statistics, $\chi^2(503) = 878.57, p < .001$, $\chi^2/df = 1.75$, CFI = .95 TLI = .94 RMSEA = .06, 90% CI [.05, .06], demonstrated a
satisfactory fit to the data. All standardised weights were significant and ranged from .23 to .89, with the exception of family-work conflict strain, which was non-significant (β = -.05, p > .05). This could reflect a weakness in Frone’s four-fold taxonomy of work-life balance, as family-work conflict did not contribute to the latent work-life balance variable.

![Diagram of latent work-life balance variable](image)

*Figure 5.1. Confirmation of latent work-life balance variable on T2 data.*

All factor loadings are significant at $p < .001$, except for family-work enrichment ($p < .01$), and family-work conflict strain ($p = .46$). $N = 229$. 
Data management.

Prior to conducting the cross-lagged analyses of the T1-T2 data, I created latent variables using a combination of observed items and multi-item parcels. A decision was made to use item parcelling for a number of reasons: (a) due to the large number of observed variables and small sample size (the use of parcels limits the number of parameters; therefore, parcels are preferred when sample sizes are small; Bagozzi & Edwards, 1998); (b) they provide a simpler data matrix, and improve normality of distributions; (c) they are more parsimonious, and there is a reduced likelihood for residuals to be correlated; and (d) parcels lead to a reduction in sampling error (Little et al., 2002).

Following the recommendations of Landis, Beal, and Tesluck (2000), the work-family enrichment (9-items), family-work enrichment (9-items), work-family conflict (6-items), family-work conflict (6-items), balance (4-items), organisational support (4-items), and family support (4-items) were each represented by one latent variable, based on two parcels of observed variables. The six work-family conflict items (strain and time) were collapsed into one measure, as were the six family-work conflict (strain and time) items. This was primarily to reduce the numbers of variables in the analysis, and was justified as the items in each cluster measure essentially the same construct (work-family conflict and family-work conflict, respectively), and have been used this way in the past (Balmforth & Gardner, 2006; Michel & Clark, 2009).

To create the parcels, all scales were first subjected to an individual exploratory factor analysis, where the extraction was restricted to one factor. Then, guided by the factor loadings, the item with the highest loading was paired with the item with the lowest loading and assigned to Parcel A. Then, the second highest and
second lowest pairs were assigned to Parcel B. The process was repeated until all items were allocated into the two parcels. The parcels were then formed by summing all the items that were allocated to them (Landis et al., 2000). Job satisfaction and family satisfaction were each represented by three individual observed items, at both T1 and T2.

**Summary Data**

Means, standard deviations, internal reliability, zero-order correlations, and correlations among latent variables used in this study are presented in Table 5.1. All variables had a Cronbach’s alpha in the range of .81 to .96. Test-retest correlations between T1 factors and T2 factors were in the .41 to .64 range for zero-order correlations, and .45 to .78 for the latent variables, indicating moderate to strong levels of stability across the time lag. Most work-life balance variables were significantly associated with the outcome variables in the expected directions: higher levels of perceived balance and higher levels of work-family enrichment and family-work enrichment were significantly associated with greater levels of job and family satisfaction at T1 and T2. However, work-family conflict did not have a significant association with family satisfaction, and family-work conflict was not significantly associated with job satisfaction at either T1 or T2. Organisational support was significantly associated with job satisfaction at T1 and T2, whereas family support at T1 was associated with family satisfaction at T2, but not job satisfaction at T2. Gender and age were not significantly associated with either job or family satisfaction at either time points; therefore, were not included in further analyses.
|   | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  | 17  | 18  | 19  | 20  | M   | SD  |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | Gender | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -   |
| 2 | Age | .22 | 1   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 43.25 | 9.29 |
| 3 | Balance T1 | -1.14 | -.03 | (.95) | .40 | .07 | .07 | .43 | .47 | .33 | .69 | .25 | .15 | .67 | -.17 | .31 | .18 | .26 | .24 | 2.97 | 1.49 |
| 4 | WFE T1 | .10 | -.00 | .37 | (.91) | .37 | -.42 | -.06 | .41 | .03 | .71 | .18 | .25 | .58 | .33 | -.33 | -.09 | .51 | .12 | -.43 | -.15 | 3.48 | .72 |
| 5 | FWE T1 | .16 | -.12 | .11 | .34 | (.85) | -.09 | -.06 | -.13 | .29 | .19 | .34 | .06 | .18 | .45 | .01 | -.02 | .06 | .30 | .06 | .26 | 3.94 | .53 |
| 6 | WFC T1 | .09 | -.04 | .76 | -.40 | -.08 | .89 | .26 | .45 | -.12 | .51 | -.18 | -.59 | -.25 | -.05 | .78 | .22 | -.29 | -.13 | -.25 | -.12 | 3.25 | .93 |
| 7 | FWC T1 | .16 | -.03 | -.08 | -.05 | -.03 | .22 | (.81) | -.08 | -.26 | -.14 | .27 | -.11 | -.05 | -.14 | .16 | .63 | -.09 | -.32 | -.14 | -.27 | 2.19 | .68 |
| 8 | Org Support T1 | .03 | .05 | .39 | .39 | .11 | -.38 | .06 | (.86) | .02 | .36 | .09 | .39 | .26 | .20 | -.45 | -.13 | .48 | .09 | .36 | .18 | 3.54 | .80 |
| 9 | Job Satisfaction T1 | .01 | -.16 | -.08 | -.04 | .27 | -.12 | -.23 | -.05 | (.92) | .09 | .43 | .11 | .01 | .31 | -.07 | -.15 | .01 | .61 | -.01 | .38 | 4.15 | 1.24 |
| 10 | Job Satisfaction T2 | -.00 | -.01 | .41 | -.66 | .18 | -.46 | -.13 | .49 | .09 | (.84) | .29 | .30 | .48 | .26 | -.40 | -.10 | .55 | .13 | .57 | .17 | 4.04 | .85 |
| 11 | Family Satisfaction T1 | .03 | -.21 | .31 | .16 | .30 | -.17 | -.24 | .16 | .43 | .24 | (.96) | .24 | .14 | .30 | -.14 | -.17 | .18 | .38 | .12 | .64 | 5.82 | 1.42 |
| 12 | Family Satisfaction T2 | -.15 | -.00 | .64 | -.24 | .07 | -.53 | -.10 | .39 | .11 | .26 | .23 | (.94) | .41 | .25 | -.81 | -.14 | .45 | .21 | .39 | .25 | 2.96 | 1.29 |
| 13 | WFE T2 | .04 | -.08 | .23 | .56 | .18 | -.22 | -.04 | .26 | .01 | .44 | .14 | .40 | (.93) | .52 | -.50 | .05 | .51 | .09 | .70 | .13 | 3.37 | .76 |
| 14 | FWE T2 | .13 | -.20 | .14 | .35 | .41 | -.05 | -.10 | .22 | .28 | .23 | .28 | .25 | .50 | (.91) | -.17 | -.15 | -.06 | .36 | .28 | .43 | 3.86 | .66 |
| 15 | FWC T2 | .15 | -.02 | -.58 | -.29 | .01 | .63 | -.13 | -.37 | -.06 | -.33 | -.13 | -.67 | .44 | -.15 | (.89) | .20 | -.29 | -.10 | -.48 | -.09 | 3.31 | .90 |
| 16 | FWC T2 | -.08 | -.06 | .17 | -.10 | .01 | .19 | -.53 | -.13 | -.13 | -.10 | -.15 | -.12 | -.03 | -.12 | .17 | (.84) | -.04 | .26 | -.07 | -.20 | 2.16 | .68 |
| 17 | Org Support T2 | .00 | -.02 | .28 | .26 | .06 | -.25 | -.09 | .44 | .01 | .28 | .17 | .41 | .47 | .22 | -.40 | -.04 | .08 | .20 | .32 | -.19 | 3.45 | .86 |
| 18 | Family Support T2 | .10 | -.20 | .14 | .10 | .28 | -.10 | -.28 | .10 | .58 | .12 | .37 | .19 | .10 | .34 | -.08 | .22 | .19 | (.92) | .08 | .53 | 4.24 | 1.26 |
| 19 | Job Satisfaction T2 | .02 | -.06 | .23 | .40 | -.08 | -.20 | -.12 | .29 | .01 | .50 | .12 | .33 | .63 | .25 | -.39 | -.07 | .45 | .06 | .86 | .09 | 3.93 | .88 |
| 20 | Family Satisfaction T2 | .06 | -.07 | .21 | .14 | .24 | -.10 | -.24 | .11 | .37 | .13 | .61 | .24 | .13 | .40 | -.08 | -.16 | .17 | .51 | .07 | (.96) | 5.81 | 1.39 |

Note. WFE = Work-family enrichment; FWE = Family-work enrichment; WFC = Work-family conflict; FWC = Family-work conflict. Cronbach's alpha of variables in parentheses. * = p < .05; ** = p < .01; *** = p < .001
Cross-lagged Analyses: Model testing.

The first step in model testing was to assess the measurement model for all variables used in the analysis. This was done by conducting confirmatory factor analyses using AMOS software, in which data from both T1 and T2 were entered simultaneously. This was used to test if all items and multi-item parcels represented the latent variables as intended. The measurement model consisted of the 18 latent variables. These were organisation support, family support, the five components of work-life balance (work-family enrichment, family-work enrichment, work-family conflict, family-work conflict, and balance), which were represented by two parcels on each occasion. Job satisfaction and family satisfaction were each represented by three items and measured at T1 and T2. The fit statistics for the measurement model, $\chi^2 = 876.79$, $df = 587$, $\chi^2/df = 1.50$, $p < .001$, CFI = .96, TLI = .95, RMSEA = .05, 90% CI [.04, .06], demonstrated a satisfactory fit for these data. Table 5.1 reports the correlations among the latent variables, which were consistent with the zero-order bivariate correlations.

The second step was to test four competing models between the predictor variables (organisation support, family support, and five components of work-life balance) and outcome variables (job satisfaction and family satisfaction). First, a constrained model without lagged casual effects, including all variables measured at T1 and T2, was estimated (stability model; M0, see Figure 5.2). Then three alternative models were fitted to the data representing (a) standard causation (the standard causality model; M1, see Figure 5.3), which added cross-lagged paths to the stability model from T1 predictors to T2 outcome variables, (b) reversed causation (the reverse causality model; M2, see Figure 5.3), which added cross-lagged paths to the stability model from T1 outcome variables to T2 predictors, and (c) reciprocal
causation (the reciprocal causation model; M3, see Figure 5.5), which added cross-lagged paths to the stability model from T1 predictors to T2 outcomes and T1 outcomes to T2 predictors. This sequence of model building starts with the basic baseline model and culminates in the more complex reciprocal model. Fit statistics for these analyses are reported in Table 5.2. As these four models were nested, a chi-squared difference significance test was utilised to examine whether each subsequent model produced a better fit to the data.
Figure 5.2. Hypothesised baseline (stability model; M0) between all variables at T1 to all variables at T2 ($N = 229$).
Figure 5.3. Hypothesised standard causality model (M1) for cross-lagged analysis of paths from predictor variables at T1 to outcome variables at T2 (N = 229).
Figure 5.4. Hypothesised reverse causality model (M2) with cross-lagged paths from outcome variables at T1 to predictor variables at T2 ($N = 229$).
Figure 5.5. Hypothesised reciprocal causality model (M3), with cross-lagged paths from outcome variables at T1 to predictor variables at T2 plus cross-lagged paths from predictor variables at T1 to outcome variables at T2 \((N = 229)\).
Table 5.2

**Goodness of Fit statistics for Cross-Lagged Relationships (N = 229)**

<table>
<thead>
<tr>
<th>Model description</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$\chi^2$/df</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
<th>RMSEA (90% CI)</th>
<th>AIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>(M0) Stability Model</td>
<td>1152.91</td>
<td>690</td>
<td>1.67</td>
<td>.94</td>
<td>.94</td>
<td>.05</td>
<td>.05 - .06</td>
<td>1412.91</td>
</tr>
<tr>
<td>(M1) Normal Causality Model</td>
<td>1110.44</td>
<td>688</td>
<td>1.61</td>
<td>.94</td>
<td>.94</td>
<td>.05</td>
<td>.05 - .06</td>
<td>1374.44</td>
</tr>
<tr>
<td>(M2) Reverse Causality Model</td>
<td>1098.42</td>
<td>686</td>
<td>1.60</td>
<td>.95</td>
<td>.94</td>
<td>.05</td>
<td>.05 - .06</td>
<td>1366.42</td>
</tr>
<tr>
<td>(M3) Reciprocal Causality Model</td>
<td>1093.90</td>
<td>685</td>
<td>1.60</td>
<td>.95</td>
<td>.94</td>
<td>.05</td>
<td>.04 - .06</td>
<td>1363.90</td>
</tr>
</tbody>
</table>

*Note.* CFI = comparative fit index; RMSEA = root mean square error of approximation; TLI = tucker-lewis index; AIC = Akaike’s information criterion.
Results of cross-lagged analyses

First, from the cross-lagged analyses, the stability model (M0) demonstrated that all variables at T1 had moderate to strong correlations with their T2 counterparts: organisation support T1 to T2 (β = .49), family support T1 to T2 (β = .74), work-family conflict T1 to T2 (β = .77), family-work conflict T1 to T2 (β = .63), work-family enrichment T1 to T2 (β = .56), family-work enrichment T1 to T2 (β = .48), balance T1 to T2 (β = .68), job satisfaction T1 to T2 (β = .55), and family satisfaction T1 to T2 (β = .64).

Second, the comparison of the four models (Figures 5.2 to 5.5) is presented in Table 5.2. All models had satisfactory fit statistics. Each of the models was nested within the reciprocal causal model (Figure 5.5), and chi-squared difference tests were conducted to examine whether each subsequent model improved fit and reached statistical significance. The chi-squared difference tests demonstrated that each subsequent model produced a significantly better fit than the previous model (i.e., the normal causality model had a better fit to the data than the stability model, Δχ² = 42.47, Δ df = 2, p < .001, the reverse causality model had a better fit to the data than the normal causality model, Δχ² = 12.02, Δ df = 3, p < .01, and the reciprocal causality model fit the data better than the reverse causality model, Δχ² = 4.52, Δ df = 1, p < .05). The reciprocal model also had the smallest AIC value. This model suggests that there were causal and reversed effects between predictor variables and outcome variables. Figure 5.6 illustrates the significant longitudinal relationships of the reciprocal causal model, including standardised regression coefficients. As seen in Figure 5.6, family support at T1 predicted greater family satisfaction at T2, family satisfaction at T1 predicted family-work enrichment at T2, job satisfaction at T1
predicted future work-family enrichment and family-work enrichment at T2, after
temporal effects were controlled.

*Figure 5.6.* Final results of best fitting reciprocal causality model (M3). Family support at T1 predicts positive family satisfaction at T2. Job satisfaction at T1 predicts work-family enrichment and family-work enrichment at T2, and family satisfaction at T1 predicts family-work enrichment at T2. Unless where indicated, standardised regression weights are $p < .001$. 
Mediation Analyses: Model Testing

A series of analyses was run to test if work-family balance mediated between organisational and family support and job and family satisfaction. The first analysis tested the causal relationships between the predictors (organisation support and family support) and the mediators (work-family enrichment, family-work enrichment, work-family conflict, family-work conflict, and balance). The second analysis assessed the causal relationships between the mediators and the outcomes (job and family satisfaction). The third analysis tested the relationships between the predictors and outcomes over time.

For each of the above analyses, a number of competing models were fitted to the data in a series of steps. First, measurement models were conducted on each of the three analyses, then, a constrained model without lagged causal effects, but including all variables measured at both occasions, was estimated (stability model; M0). Then, three alternative models, representing a normal causality model (M1), reversed causality model (M2), and reciprocal causality model (M3) were assessed and compared with each other using all fit indices mentioned previously, and the chi-square difference test to assess the differences amongst competing nested models. The best fitting model is the one which has the lowest value according to the Akaike statistic (Akaike, 1987).

Cross-lagged relationships between predictors and mediators.

Four models were tested to examine the cross-lagged relationships between the expected predictors and mediators. Model 1 (M1) represents the standard causality model, which is identical to the stability model (M0), but also includes structural paths from organisation support and family support at T1 to the five components of
work-life balance at T2. Model 2 (M2) differs from Model 1 as it represents the reversed causality between components of work-life balance at T1 and organisation and family support at T2. Model 3 (M3) integrates Model 1 and Model 2 by allowing the structural paths between organisation and family support and the components of work-life balance to go both ways. Results of these analyses are reported in Table 5.3.

Table 5.3 shows that the reciprocal model fit the data better than the stability model (M0; $\Delta \chi^2 = 47.04, \Delta df = 8, p < .001$), the normal causality model (M1; $\Delta \chi^2 = 25.79, \Delta df = 4, p < .001$), and the reversed causality model (M2; $\Delta \chi^2 = 20.08, \Delta df = 4, p < .001$). This model (see Figure 5.7) suggests that there were causal and reversed effects between organisational and family support, and work-life balance. Family support at T1 predicted greater family-work enrichment at T2, and family-work enrichment at T1 predicted family support at T2, even after temporal effects were controlled. Organisation support at T1 positively influenced family-work enrichment and balance at T2, and less organisation support at T1 led to higher levels of work-family conflict at T2. This suggests that organisation support has a positive influence on the family, which leads to greater work enrichment. Family-work conflict at T1 had a significant association with family support at T2.
Figure 5.7. Best fitting model (reciprocal causality model) of statistically significant, cross-lagged relationships between predictors and mediators (N = 229). Note: * p < .05, ** p < .01. All other standardised regression weights: p < .001.
Table 5.3

**Goodness of Fit statistics for Cross-Lagged Relationship between Predictors and Mediators (N = 229)**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$\chi^2$/df</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA (90% CI)</th>
<th>RMSEA</th>
<th>AIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement Model</td>
<td></td>
<td>376.42</td>
<td>258</td>
<td>1.46</td>
<td>.98</td>
<td>.97</td>
<td>.05 - .05</td>
<td>.03</td>
<td>672.42</td>
</tr>
<tr>
<td>(M0) Stability Model</td>
<td></td>
<td>549.62</td>
<td>318</td>
<td>1.73</td>
<td>.96</td>
<td>.95</td>
<td>.06 - .06</td>
<td>.05</td>
<td>725.62</td>
</tr>
<tr>
<td>(M1) Normal Causality Model</td>
<td></td>
<td>528.37</td>
<td>314</td>
<td>1.69</td>
<td>.96</td>
<td>.95</td>
<td>.06 - .06</td>
<td>.05</td>
<td>712.37</td>
</tr>
<tr>
<td>(M2) Reverse Causality Model</td>
<td></td>
<td>523.38</td>
<td>314</td>
<td>1.67</td>
<td>.96</td>
<td>.95</td>
<td>.05 - .06</td>
<td>.05</td>
<td>707.38</td>
</tr>
<tr>
<td>(M3) Reciprocal Model</td>
<td></td>
<td>502.58</td>
<td>310</td>
<td>1.62</td>
<td>.96</td>
<td>.96</td>
<td>.05 - .06</td>
<td>.04</td>
<td>694.58</td>
</tr>
</tbody>
</table>

*Note. CFI = comparative fit index; RMSEA = root mean square error of approximation; TLI = Tucker-Lewis index; AIC = Akaike’s information criterion.*
Cross-lagged relationships between mediators and outcomes.

Similar to the procedure used above, a number of competing models were fitted to the data in a series of steps. First, a constrained model without lagged causal effects, but including all variables measured at both occasions, was estimated (stability model (M0)). Then, three alternative models representing a standard model (cross-lagged; M1), reversed causality model (M2), and reciprocal causality model (M3), which were nested within the stability model, were assessed and compared with each other.

Model 1 (M1) represents the standard causality model, which is identical to the stability model (M0), but also includes structural paths from the five components of work-life balance at T1 to job and family satisfaction at T2. Model 2 (M2) differs from Model 1 as it represents the reversed causality between job and family satisfaction variables at Time 1 to the work-life balance components at Time 2. Model 3 (M3) integrates Model 1 and Model 2 by allowing the structural paths between the components of work-life balance and job and family satisfaction to go both ways. Results of these analyses are reported in Table 5.4.

As displayed in Table 5.4, there was no difference between the standard causality model (M1) and the stability model. However, there was evidence for a reversed causality relationship, and there was significant difference between the stability model (M0) and this model (M2; Δχ² = 18.41, Δdf = 3, p < .001). There were no additional significant pathways in the reciprocal model (M3); the only significant pathways were the same as the reversed causation model (M2). Thus, the reversed causation model was accepted as the best-fitting model for these data, which included significant stability pathways. See Figure 5.8 for the simplified best fit model of statistically significant cross-lagged associations between all components of
work-life balance (mediators) and job and family satisfaction (outcomes). As a test of parsimony, the AIC statistic was lowest for the reversed causation model, which demonstrated consistency with the chi-square difference test.

There were no longitudinal associations between any of the work-life balance variables at T1 and job and family satisfaction at T2. However, as can be seen in the final best fit model (Figure 5.8), there were significant paths from job satisfaction at T1 to work-family enrichment and family-work enrichment at T2 ($\beta = .18$ and $\beta = .23$, $p < .01$), and significant paths from family satisfaction at T1 to family-work enrichment at T2 ($\beta = .13$, $p < .05$).
Figure 5.8. Best fitting model (reverse causality model) of statistically significant, cross-lagged associations between work-life balance components (mediators) and job and family satisfaction (outcomes). Note: * $p < .05$, ** $p < .01$. All other standardised regression weights: $p < .001$. 
Table 5.4

*Goodness of Fit statistics for Cross-Lagged Relationships between Mediators and Outcome Variables (N = 229)*

<table>
<thead>
<tr>
<th>Model description</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$\chi^2$/df</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
<th>RMSEA (90% CI)</th>
<th>AIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement Model</td>
<td>579.27</td>
<td>373</td>
<td>1.55</td>
<td>.97</td>
<td>.96</td>
<td>.05</td>
<td>.04 - .06</td>
<td>889.27</td>
</tr>
<tr>
<td>(M0) Stability Model</td>
<td>686.30</td>
<td>425</td>
<td>1.62</td>
<td>.96</td>
<td>.95</td>
<td>.05</td>
<td>.05 - .06</td>
<td>892.30</td>
</tr>
<tr>
<td>(M1) Normal Causality Model</td>
<td>686.30</td>
<td>425</td>
<td>1.62</td>
<td>.96</td>
<td>.95</td>
<td>.05</td>
<td>.05 - .06</td>
<td>892.30</td>
</tr>
<tr>
<td>(M2) Reverse Causality Model</td>
<td>667.89</td>
<td>422</td>
<td>1.58</td>
<td>.96</td>
<td>.96</td>
<td>.05</td>
<td>.04 - .06</td>
<td>879.89</td>
</tr>
<tr>
<td>(M3) Reciprocal Model</td>
<td>671.93</td>
<td>423</td>
<td>1.59</td>
<td>.96</td>
<td>.96</td>
<td>.05</td>
<td>.04 - .06</td>
<td>881.93</td>
</tr>
</tbody>
</table>

*Note.* CFI = comparative fit index; RMSEA = root mean square error of approximation; TLI = tucker-lewis index; AIC = Akaike’s information criterion.
**Cross-lagged relationships between predictors and outcomes.**

In the final analysis, I investigated the longitudinal relationships between the predictor variables and the outcome variables. Four models were tested to examine these cross-lagged relationships: Model 0 (M0: the stability model), Model 1 (M1: the standard causality model), Model 2 (M2: the reversed causality model), and Model 3 (M3: the reciprocal model). As can be seen in Table 5.5, the fit of the various direct effects model (without the work-life balance components) was good. Table 5.5 shows that the reciprocal model fit the data better than the stability model (M0; $\Delta \chi^2 = 15.55$, $\Delta df = 3, p < .005$), the normal causality model (M1; $\Delta \chi^2 = 9.66$, $\Delta df = 2, p < .010$), and the reversed causality model (M2; $\Delta \chi^2 = 4.11$, $\Delta df = 1, p < .05$).

See Figure 5.9 for final direct effect model of statistically significant cross-lagged associations between predictors and outcomes. This model suggests that there were causal and reversed effects between support and satisfaction over time. Family satisfaction at T1 predicted family support at T2, and family support at T1 predicted family satisfaction at T2, which highlights the reciprocal influence (gain spirals). There was also a positive link between family satisfaction at T1 and organisational support at T2, which emphasises the importance of integrating work and family domains. This suggests that if you are happy in your home life, then you are more likely to perceive your organisation as being supportive. These results also confirm the direct effects between the family support (predictor) and family satisfaction (outcome); a precondition for partial mediation.
Figure 5.9. Final best fitting model (reciprocal causality model) of statistically significant, cross-lagged relationships between predictors and outcomes ($N = 229$). Note: * $p < .05$, ** $p < .01$. All other standardised regression weights: $p < .001$. 
Table 5.5

*Goodness of Fit statistics for Cross-Lagged Relationships for Direct Effects between Predictor Variables and Outcome Variables (N = 229)*

<table>
<thead>
<tr>
<th>Model description</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$\chi^2$/df</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
<th>RMSEA  (90% CI)</th>
<th>AIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement Model</td>
<td>239.49</td>
<td>142</td>
<td>1.63</td>
<td>.98</td>
<td>.97</td>
<td>.05</td>
<td>.04 - .07</td>
<td>367.49</td>
</tr>
<tr>
<td>(M0) Stability Model</td>
<td>259.69</td>
<td>158</td>
<td>1.64</td>
<td>.97</td>
<td>.97</td>
<td>.05</td>
<td>.04 - .07</td>
<td>363.69</td>
</tr>
<tr>
<td>(M1) Standard Causality Model</td>
<td>253.80</td>
<td>157</td>
<td>1.62</td>
<td>.98</td>
<td>.97</td>
<td>.05</td>
<td>.05 - .06</td>
<td>359.80</td>
</tr>
<tr>
<td>(M2) Reverse Causality Model</td>
<td>248.25</td>
<td>156</td>
<td>1.59</td>
<td>.98</td>
<td>.97</td>
<td>.05</td>
<td>.04 - .06</td>
<td>356.25</td>
</tr>
<tr>
<td>(M3) Reciprocal Model</td>
<td>244.14</td>
<td>155</td>
<td>1.58</td>
<td>.98</td>
<td>.97</td>
<td>.05</td>
<td>.04 - .06</td>
<td>354.14</td>
</tr>
</tbody>
</table>

*Note.* CFI = comparative fit index; RMSEA = root mean square error of approximation; TLI = tucker-lewis index; AIC = Akaike’s information criterion.
Summary of Results

First, the seven components of work-life balance were confirmed to be independent by conducting a confirmatory factor analysis on the T2 data. However, not all of these seven, 1\textsuperscript{st}-order latent variables loaded significantly onto a 2\textsuperscript{nd}-order latent variable, with family-work conflict (strain) not being related significantly to the higher order factor. A second CFA confirmed that five components (work-family enrichment, family-work enrichment, work-family conflict, family-work conflict, and balance), which included combined items for work-family conflict (strain and time), and combined items for family-work conflict (strain and time), met the criteria for a 2\textsuperscript{nd}-order latent structure. These five latent variables were used subsequently in the cross-lagged analyses. These analyses provided additional support for the new balance measure as a separate component of work-life balance, but one that could be represented as a component of the work-life balance construct.

Second, the summary of results from the cross-lagged analyses, as displayed in Figure 5.8, are as follows: (a) all variables used in the model had moderate to high stability across time; (b) family support at T1 predicted future family satisfaction at T2, and family satisfaction at T1 predicted family-work enrichment at T2; (c) job satisfaction at T1 predicted future work-family enrichment at T2 and family-work enrichment at T2.

Third, the summary of results from the mediation analyses were that: (a) the T1 predictor of organisational support was associated with the T2 mediators of family-work enrichment, work-family conflict, and balance, and the T1 predictor of family support was associated with the T2 mediator of family-work enrichment, indicating potential, standard causal mediating roles for family-work enrichment,
work-family conflict, and balance; (b) the T1 mediators of family-work enrichment and family-work conflict were associated with the T2 predictor of family support, indicating potential, reversed causal mediating roles for family-work enrichment and family-work conflict (Figure 5.9); and (c) the T1 outcome variable of job satisfaction was associated with the T2 mediating variables of work-family enrichment and family-work enrichment, and the T1 outcome variable of job family satisfaction was associated with the T2 mediating variable of family-work enrichment, indicating potential, reversed causal mediating roles for work-family enrichment and family-work enrichment (Figure 5.10).

As none of the T1 mediating variables was associated with the T2 outcome variables (Figure 5.10), there is no support for the work-balance variables mediating between the T1 predictor variables and the T2 outcome variables, as, for mediation, a mediator must be associated with the outcome variable (Baron & Kenny, 1986). While job satisfaction at T1 was associated with work-family enrichment at T2, work-family enrichment at T1 was not associated with either predictor variable at T2 (Figure 5.10), indicating no reversed causal mediation between the job and family satisfaction and organisational and family support. However, job and family satisfaction at T1 were associated with family-work enrichment at T2 (Figure 5.10), and family-work enrichment at T1 was associated with family support at T2 (Figure 5.9), indicating support for a reversed causal mediation between family satisfaction at T1 and family support at T2.

Finally, there was no support for mediation based on reciprocal relationships. Given the number of analyses conducted, the evidence is weak for the work-family balance variables operating as mediators between organisational and family support and job and family satisfaction.
Discussion

The first aim of Study 3 was to confirm the five components of the latent work-life balance structure, which was tested in Study 2, and to provide further evidence for the validity of the recently developed balance scale. The five components of work-life balance were: work-family enrichment, family-work enrichment, work-family conflict (strain and time), family-work conflict (strain and time), and balance. The inclusion of the balance variable as a component of work-life balance extends Frone’s (2003) four-fold taxonomy of work-life balance, which posits that high levels of work-family enrichment (plus family-work enrichment), as well as low levels of work-family conflict (plus family-work conflict) equate to balance. Frone (2003) was one of the first researchers to include the positive and negative aspects of work-life balance and suggested that both directions should be included in a model (i.e., work to family and family to work). However, the finding that the family-work conflict (strain) variable did not contribute to the 2nd-order latent work-life balance variable, using T2 data, suggests a weakness in Frone’s four-fold conceptualisation of work-life balance. When the five components of the latent work-life balance variable were replicated on the T2 data, the balance variable contributed the second highest amount of explained variance after work-life conflict. Interestingly, family-work conflict and family-work enrichment explained little of the variance of the work-life balance variable ($\beta = -.32$ and $\beta = .23$), which supports the review by Geurts and Demerouti (2003), who found that work negatively influenced non-work more often than non-work influenced work. In the present study, the direction from work-to-family was much stronger than the family-to-work direction for both conflict and enrichment components (Kossek & Ozeki, 1998; O'Driscoll et al., 2006).
This study demonstrated that balance is a distinct construct from enrichment and conflict, which supports recent research that suggests that work-life balance is more than conflict and enrichment (Carlson et al., 2009; Haar, 2013). Work-life conflict describes the degree to which work and non-work life are incompatible with each other (Greenhaus & Beutell, 1985), enrichment focuses on the reciprocally beneficial effect that both roles have on each other (Greenhaus & Powell, 2006), and balance allows the individual to indicate how they perceive they manage their multiple roles overall (Haar, 2013).

The second aim of the study was to investigate the longitudinal associations of both the negative and positive sides of the work-life interface and identify how resources from the workplace and home contribute to work-life balance and job and family satisfaction. As there have been very few longitudinal studies that have examined reversed and reciprocal causal relationships (de Lange et al., 2004), the present study addressed this limitation by examining reciprocal relationships between domain specific support, work-life balance components, and domain specific well-being. This study was also the first study to include all dimensions of work-life balance (work-family conflict, family-work conflict, work-family enrichment, family-work enrichment, and balance) in a longitudinal design.

By utilising a 1-year longitudinal design, this study investigated a model of work-life balance and well-being from both the work and family domains. All variables utilised had moderate to strong correlations with their corresponding T2 variables, which indicated that the strongest predictors of each of the T2 variables were their T1 counterparts. Family support, work-family conflict, and balance were the variables with the highest stability over a 1-year time lag.
When all variables were included in the cross-lagged analysis, the reciprocal model was the best fitting. In this model, family support at T1 predicted family satisfaction at T2, and family satisfaction at T1 predicted family-work enrichment at T2. Whilst this is not a reciprocal relationship per se, this finding suggests that greater levels of support at home leads to increased level of family satisfaction, and greater levels of family satisfaction increases the likelihood that family life enriches the work experience over time.

In the cross-lagged analysis, there was a reverse causation relationship for job satisfaction and enrichment. High levels of job satisfaction at T1 were associated with high levels of work-family and family-work enrichment at T2. Employees who rated that they were satisfied with their job at T1 were more likely to report that this positive feeling at work would spill-over and enrich their later non-work life, and report that their family and non-work roles improved their later experience at work. So, although this is not a reciprocal relationship between job satisfaction and enrichment, job satisfaction was associated positively with later work and non-work domains, from both family to work and work to family. Job satisfaction is typically viewed as an outcome of work-life conflict and work-family enrichment (Carlson et al., 2009; Michel & Clark, 2009); however, the job satisfaction spillover hypothesis posits that job satisfaction is an antecedent rather than a consequence of positive and negative work-family experiences (Ilies, Wilson, & Wagner, 2009). Employees who are happy in their job tend to be happier at home, and this crosses over to their family members via emotional contagion; whereas employees who are dissatisfied in their work-role may be more likely to experience more work-life conflict and less positive affect in other roles. Judge and Ilies (2004) found that job satisfaction was linked to positive work-home interaction rather than a negative work-home interaction. An
advantage of longitudinal work-life balance models is that more confident statements can be made about the direction of causality.

The third aim of this study was to examine whether the components of work-life balance mediated (partial) the relationship between support and satisfaction over time. I found support for the partial mediation effect leading from family support through family-work enrichment to family satisfaction over a 1-year time lag. Overall, however, the support for the mediation hypotheses was not strong.

Furthermore, in these mediation analyses, I found longitudinal reciprocal effects (gain spirals) between family support and family-work enrichment, and family support and family satisfaction. Lu (2011) found that family support, family-work enrichment, and family satisfaction had reciprocal relationships with each other. Although Lu used a three wave design, and was able to test for full mediation, Lu ran two separate longitudinal models for work and family: (a) family support → family-work-enrichment → family satisfaction, and (b) work support → work-family-enrichment → job satisfaction across time. Running one model as in the present study, which included variables from both work and family domains simultaneously, could account for the different results. Furthermore, Lu did not control for work-life conflict in the model.

Similarly, Hakanen et al. (2011) found that resources from the home had a positive association with marital satisfaction over time, and marital satisfaction predicted future family resources. The difference between the present study and that of Hakanen et al. was that they only included enrichment in their analyses, and did not consider the effect that work-family and family-work conflict may have had on family resources and marital satisfaction over time. Hakanen et al. did not find a relationship between marital satisfaction at T1 and family-work enrichment at T2. However, they
only included spousal satisfaction, whereas the present study used a measure of family satisfaction, which included all family members (e.g., spouse, parents, children, and extended family members).

Several studies have found that family support has a positive relationship with family-work enrichment (Aryee et al., 2005; Wayne et al., 2006); however, these studies were cross-sectional. The results from the present study support the notion of gain spirals, as proposed by the conservation of resources theory (Hobfoll, 1989, 2001), which highlights that the creation and generation of resources and energy is a dynamic process (Lu, 2011). According to the conservation of resources theory (Hobfoll, 2002), employees who have more resources are less vulnerable to resource loss, therefore, more able to gain more resources (e.g., having a family that supports their working life enables an employee to bring this positive energy to their work environment, which ultimately leads to greater family satisfaction). Importantly, this finding demonstrated that family satisfaction helps nurture supportive relationships in both work and family domains over time.

Unlike Hakanen et al. (2011), I did not find any cross-lagged relationship between organisational support → enrichment → job satisfaction. However, Hakanen et al. used work engagement as their outcome variable, which may not translate to job satisfaction. Plus, they used models with fewer variables, and did not include conflict in any of their models. Furthermore, it is important to note that it is typical for cross-lagged effects from T1 to T2 to be small after controlling for T1 to T2 stability effects, as many constructs are relatively stable across time (de Lange et al., 2004).

Although there were no cross-lagged relationships between organisation support and components of work-life balance and satisfaction, there were significant across-time correlations between organisation support and job satisfaction (r = .36, p
< .001), organisation support and balance ($r = .39, p < .001$), organisation support and work-family conflict ($r = -.45, p < .001$), and organisation support and work-family enrichment ($r = .25, p < .001$). These associations are consistent with other research that suggests that social support from the workplace is beneficial in assisting individuals cope and reduce the negative effects of combining their work and family roles (Brough et al., 2005; Daalen, Willemsen, & Sanders, 2006). However, these studies were cross-sectional, and this suggests, based on the results of the current study, that further work is required to assess how these relationships might operate over time. Lapierre et al. (2008), for example, found that a family supportive work-environment was significantly linked to lower levels of work-family conflict and family-work conflict in a sample of managers from five different countries. However, both Brough et al. (2005) and Lapierre et al. (2008) did not include enrichment in their models and there have only been a few studies that examined the link between a supportive organisation and enrichment (McNall et al., 2011). Wayne et al. (2006) found that an informal family-supportive organisational culture significantly predicted work-family enrichment, and that informal workplace support was more relevant to enrichment than formal workplace polices. They suggested that if these results were replicated in future studies, organisations should funnel their resources to create a more family-supportive organisational culture, rather than rely on formal policies and programs. Not only does a supportive family culture encourage enrichment between work and family domains, it also reduces inter-role conflict (Allen, 2001).

In this study, I aimed to integrate the conservation of resources theory and the complementary resource theory of social exchange into the work-life balance literature. In line with Hobfoll’s conservation of resources theory (1989, 2001), the present study found support for resource gains between family-work enrichment and
support, on the one hand, and family-work enrichment and satisfaction on the other. This implies that the positive aspect of work-life balance is consistent with gain spirals as proposed by Hobfoll (1989, 2001). Having support from the organisation and family leads to greater family-work enrichment, as well as greater levels of well-being, which, in turn, generates the perception that the family and organisation are supportive. According to the resource theory of social exchange, the types of resources being exchanged within a social relationship, such as love, support, and information, are important, and these resources could be regarded as an antecedent or a consequence. In line with the norm of reciprocity (Blau, 1964), employees who feel that they receive support from their work place would have a more favourable attitude to both their job and the organisation. The norm of reciprocity is demonstrated in this study, as supportive environments led to well-being and well-being led to feelings that individuals felt more supported.

One of the prominent findings of this study is how important the non-work domain was to perceptions of the workplace. Family-work enrichment, whereby skills, knowledge, and positive affect originating in the family domain, led to the perception that the individual was a more satisfied worker was a major contributing factor. Previous research has tended to include enrichment from the work-family direction, rather than the family-work direction (Aryee et al., 2005; Hakanen et al., 2011; Nicklin & McNall, 2012). Although there has been a suggestion that the outcomes of enrichment would be stronger in the receiving domain (e.g., the outcomes of work-family enrichment would be stronger in the family domain and the outcomes of family-work enrichment would be stronger in the work domain), this has not necessarily been the case (Hakanen et al., 2011). A recent meta-analysis conducted by Shockley and Singla (2011) found evidence for the source attribution
perspective, which is that individuals would credit the source of enrichment (i.e., outcomes of work-family enrichment would be stronger in the work domain and outcomes of family-work enrichment would be stronger in the family domain). The present study highlights the need to include both directions of enrichment when examining antecedents and consequences from family and work domains, rather than following a domain-specific or source attribution perspective.

A number of limitations of this study should be considered. First, the data were self-reported, which may have inflated common method variance. Second, the present study only had two measurement points. Dorman and Zapf (2002) have suggested that multi-wave studies are more valuable for examining cross-lagged relationships than a two-wave panel design. Third, the participants for this study were from a range of public schools in one area of Queensland; therefore, these results may not generalise to other populations of teachers, or other occupations. Although the relationships between longitudinal associations were quite small, Zapf et al. (1996) argued that small effect sizes are common in longitudinal research.

The strengths of this study were that it addressed some of the limitations of longitudinal studies discussed by de Lange et al. (2004). All variables were measured at both T1 and T2, structural equation modelling was utilised, and two complementary theories (conservation of resources and resource theory of social exchange) were used to explain resource gains. This study was also the first to examine resources, work-life balance, and well-being from the work and family domains simultaneously over time. As a result, the study was able to highlight the benefits that the non-work domain brings to the work domain.
Chapter 6

General Discussion: Implications for Practice and Organisations

Overview

The purpose of this research was two-fold: to validate a scale of perceived work-life balance and to test a new model of work-life balance, which examined the antecedents and consequences of work-life balance from both the work and non-work perspectives, and which simultaneously, included positive and negative spillover between the two domains. To achieve these aims, a rigorous validation process was undertaken to assess the work-life balance measure in Study 1. This new measure was then included in a model of work-life balance, which was tested cross-sectionally in Study 2, and then included in a longitudinal model in Study 3. The results of this research contribute to the work and non-work interface literature in three substantive ways. First, by expanding on existing theory, which recognises that partaking in multiple roles can be beneficial not just conflictual, second, by reinforcing that a social exchange occurs when employees feel that their organisation supports their non-work needs, and third, by substantiating that an employee’s family and non-work support is instrumental to whether their experience of work is a positive or negative one.

This research has strengthened the importance of work-life balance for individuals, families, organisations, and the community in which they live and work. The overwhelming trend of past work-life interface research has been the focus on the negatives of combining work and non-work roles (see meta-analyses by Kossek et al., 2011; Michel et al. 2011). This current research has addressed the call for a more balanced approach to the work-life interface by demonstrating that combining multiple roles can be an enriching experience, over and above the conflicts that can
occur. As conflict, enrichment, and balance are distinct constructs that can be experienced simultaneously, it is important to identify which antecedents lead to distress, fulfilment, and balance (Byron, 2005). This research identified resources and demands from the work and non-work domains that increased work-life enrichment, decreased work-life conflict, and created a sense of perceived balance, which ultimately led to well-being at work and at home. A gap addressed by this research is the paucity of studies that has included antecedents and consequences of work-life balance in the same model and including factors from both work and non-work domains.

A further shortcoming in previous work-life research, which has been addressed in this thesis, is the lack of attention given to the contribution of the home environment to well-being, such as the support of a partner or family members for work commitments (van Steenbergen et al., 2009). There has been an assumption that demands from family or other non-work roles lead to greater family-work conflict; this research has found that the direction of conflict is more likely to be in the work-to-non-work direction than the non-work to work direction.

As the results of the studies conducted for this PhD program have been discussed in previous chapters, the main purpose of this chapter is to give a brief summary of each chapter, discuss the implications of this research for individuals, their families, and organisations that they work for, address the limitations of the current research, and suggest a focus for future research.

**Importance of Work-Life Balance**

A healthy work-life balance has implications for individuals, their families, their workplace, and communities in which they live (Squire & Tilly, 2007). As ecological systems theory (Bronfenbrenner, 1992) posits, work and other spheres of
life are interconnected, and influence one another positively and negatively. Yet, there exists discourses that assume that this is not the case. Examples are the ideal worker norm, that suggests that good workers are available to work long hours in their workplace, without making any provisions for non-work responsibilities (Brough et al., 2008), or that work-life balance is a “choice and a personal responsibility” (Lewis et al., 2007, p. 365).

Marks and MacDermid’s (1996) role balance theory suggests that perceived work-life balance may not be role specific, but rather acknowledges the individual across all roles (i.e., total role system). Therefore, negative work-life balance may indicate that an individual is struggling in multiple roles, whereas positive work-life balance suggests that they are managing their work and non-work roles sufficiently or well. Participating in multiple roles may be an overall positive experience. According to Bronfenbrenner’s (1992) ecological system theory and Hobfoll’s (2001) conservation of resources theory, all roles are integrated, inter-related, and influence one another. Therefore, segmenting work from family or other non-work domains does not take into account the influence that each has on the other. Work may be important to an individual because it provides the resources (e.g., money) to pay for education of their children or to fund a sporting pursuit. Therefore, an individual would perceive that their work and non-work lives are balanced, even if they are working long hours, if they can achieve their main objectives. Consequently, it is the perceived balance of the whole system (i.e., all roles that they occupy), rather than the importance or value that they put on a specific role, such as work or family that is crucial to the individual.

There has been a call from researchers to broaden the discussions on work-life balance to “consider the impact of the organisation of work on the wider sphere of life
beyond paid employment – for the individual, for communities, for society at large” (Webster, 2004, p. 62). This research has partially addressed this need by including antecedents and consequences of work-life balance from both work and non-work domains.

Organisational research continues to focus on the scarcity perspective, which presumes that balancing multiple roles leads to inter-role conflict (Greenhaus & Powell, 2006), which inevitably leads to psychological distress and job dissatisfaction (Bruck, Allen, & Spector, 2002; Grandey et al., 2005). However, the recent move towards positive psychology, has seen work-life theorists shifting their focus to the enhancement approach, which posits that the experience in one role (e.g., family) can not only improve the quality of life in the other role (e.g., work; Greenhaus & Powell), but may also make it easier to participate in the other role (Wayne et al., 2004).

An important contribution of the present study is that it adds to the understanding of the work-life enrichment process, which provides a more balanced conceptualisation of work-life balance, whilst recognising that this can not be done without including the inter-role conflict that exists. Taking these two perspectives into account has led Frone (2003) to define work-life balance as consisting of “low levels of inter-role conflict and high levels of inter-role facilitation” (p. 145). Frone’s definition is compelling, and the current research has supported Frone’s four-fold taxonomy of work-life balance, that work-life balance is bi-directional (work-to-family/life and family/life-to-work), and consists of both positive (enrichment) and negative (conflict) aspects. There has been mixed results for Frone’s conceptualisation of work-life balance, with recent researchers suggesting that the addition of a measure, which specifically identifies perceived work-life balance, could
extend and test existing work-life theory beyond the use of conflict and enrichment (Carlson et al., 2009; Haar, 2013). Therefore, Study 1 validated a new measure of work-life balance to complement and extend Frone’s existing conceptualisation of bi-directional conflict and enrichment.

**Validation of a New Work-Life Balance Measure: Study 1**

Various definitions and conceptualisations of work-life balance have been given throughout this thesis, and a distinct lack of sound empirical evidence has been acknowledged (Kallith & Brough, 2008). The validation of the new balance measure in Study 1 demonstrated that balance was indeed a distinct construct from work-life conflict and work-life enrichment. The discriminant validity of the new balance measure was tested and confirmed in Study 1, and was then repeated on T2 data, with similar findings. When balance, conflict, and enrichment were tested in a nomological network with job satisfaction, family satisfaction, and gender, all variables were related in the hypothesised direction. Furthermore, balance was positively associated with both directions of enrichment and negatively associated with both directions of conflict. As expected, higher levels of perceived balance were associated with increased levels of job and family satisfaction. These findings support those of Carlson et al. (2009), who found that balance contributed to the explanation of job satisfaction and family satisfaction after accounting for work-family conflict and enrichment.

This study has addressed a gap in the literature by specifically measuring the individuals’ perception of work-life balance, which does not have a negative connotation (i.e., conflict). The wording of the work-life conflict scales tends to suggest that work and non-work roles compete for resources. For example, “Due to all the pressures at work, sometimes when I come home I am too stressed to do the
things that I enjoy” or “Due to stress at home, I am often preoccupied with family/life matters at work”, whereas, the balance measure captures the global assessment of work-life balance, as it measures how balanced an individual feels across all their roles; for example, “Overall, I believe that my work and non-work life is balanced”. Therefore, work-life balance could be considered as a personal evaluation of how individuals manage the multiple roles in their lives, whether it be work, family, social, or leisure pursuits (Haar, 2013).

Testing a New Model of Work-Life Balance: Study 2

The second overall aim of this research was to test the merits of Frone’s (2003) model of work-life balance in a full structural model, as well as testing two alternate models of work-life balance. The alternative model of work-life balance used in Study 2 extended Frone’s (2003) four-fold taxonomy of work-life balance by including balance as the fifth component of work-life balance, as well as conflict and enrichment, which are viewed as being bi-directional (work-to-family and family-to-work). Support was found for the new five-factor model of work-life balance, as each component was found to be a distinct construct, with different antecedents and consequences. Although, the data fit Frone’s model quite well, some parts of the model were not supported: time-based conflict was not significantly associated with either family or job satisfaction. The balance variable (from Study 1) added richness to Frone’s model, as it captured unique influences of the antecedents, and further identified that conflict, enrichment, and balance were distinct concepts with different antecedents and outcomes (Carlson et al. 2009; Haar, 2013).

The ability to measure the components of work-life balance has implications for human resource development and policy makers, as indicators of balance have been linked to greater job satisfaction (Ford et al., 2007; Saltzstein et al., 2001) and
family satisfaction (Aryee et al., 2005; Michel et al., 2009), as well as a myriad of other organisational outcomes (see reviews by Allen et al., 2000; Eby et al., 2005; Ford et al., 2007; McNall et al., 2010). Furthermore, strategies can be developed to increase enrichment, decrease conflict, and increase perceptions of balance.

The findings from Study 2, demonstrated that demands and resources from work and non-work domains had different associations with components of work-life balance, and the magnitude of the relationships varied. For example, number of hours, work demands, and organisational time expectations were related to greater conflict and less perceived balance. The hypothesis that workplace demands would be negatively associated with enrichment was not supported. Only the support variables were linked with enrichment; organisation support was associated with greater work-family enrichment, greater family-work enrichment, and more perceived balance. These results suggest that it is possible to experience conflict and enrichment simultaneously. If individuals perceived that their organisation was supportive of their non-work needs, they were more likely to experience higher levels of enrichment, less work-life conflict, and felt that they had balance between their work and non-work. Grzywacz and Marks (2000) found that resources (e.g., decision latitude and learning opportunities) were strongly related to work-family enrichment, but had no relationship with conflict. Similarly, workplace demands (e.g., working extra hours) were strongly related to work-family conflict yet had no relationship with enrichment.

The magnitude of the relationship between organisation support and work-family enrichment was more than double that of the relationship between organisation support and work-life conflict. Although supervisor support was linked to greater work-life enrichment, the strength of the relationship was much less than having a
supportive organisational culture that recognised and supported employees’ non-work lives. This finding supports Kossek et al.’s (2011) recent meta-analysis, which found that organisational work-family specific support had a stronger relationship with work-life conflict than general supervisor support.

A similar story emerged when viewing family demands and family support and their relationship with work-life balance. Higher family demands were associated with increased family-work conflict, whereas greater family support was linked to increased family-work enrichment and perceived balance, and less family support was associated with increased conflict. An interesting finding from the relationships of demand and resource variables to work-life balance (from both the work and non-work domains) is that resources were more strongly related to positive interactions (enrichment) than to negative interactions (conflict), and demands did not influence enrichment when conflict was controlled for. Conservation of resources (Hobfoll, 1989) is a good lens through which to view the work-family/non-work interaction, as individuals seek to acquire and maintain resources. Conservation of resources posits that the combination of multiple roles does not inevitably result in strain; rather, each role may offer resources that help protect the individual from demands associated with the other role. Resources may diminish if there is too much strain (i.e., loss spirals) or they many grow and gain further resources (i.e., gain spirals; Hobfoll, 2001). Therefore, support from the workplace or family might be crucial to building resistance to strain.

A further aim of Study 2 was to examine to the extent to which the components of work-life balance mediated the relationship between demands and resources and job and family satisfaction. The results suggested that workplace support (work-family specific organisation support and direct supervisor support) was
associated with greater job satisfaction via work-family enrichment. Moreover, it was noted that a supportive organisational culture, which recognised that employee’s family and non-work needs were important, had a much stronger relationship with job satisfaction via enrichment than direct supervisor support. Hammer et al. (2009) found similar results; however, they only examined direct effects between family-supportive supervisor behaviours and general supervisor support with enrichment, conflict, and job satisfaction. Positive organisational scholarship (Cameron et al., 2003) and social exchange theory (Blau, 1964) help explain this linkage: creating positive work environments, in which the management and organisation recognise that employees’ families and non-work roles are important, enriches the individual’s work and non-work roles, and leads to greater satisfaction with their job. The employer is rewarded by the employee reciprocating and maintaining a positive environment.

Similar findings were found in the family domain as family support had both a direct and indirect effect on family satisfaction via family-work enrichment. Employees who received practical and emotional support at home, especially if their family supported them in their work role, were more likely to feel that family enhanced their work role, and, thus, have a more positive experience at home. On the other hand, high family demands led to decreased family satisfaction via family-work conflict.

**Longitudinal Relationships between Support, Work-Life Balance and Well-being: Study 3**

As the majority of work-life research has been dominated by cross-sectional research, has investigated either the outcomes or the predictors of the work-family interaction separately, has primarily focused on the work-to-family effect rather than
the family-to-work effect, and has been more likely to focus on the negative impact (i.e., conflict), the main aim of Study 3 was to investigate the longitudinal associations of the antecedents and outcomes of work-life balance from both the work-to-family/non work and family/non-work-to work directions. This study also addressed a gap in the literature by testing reversed causal and reciprocal causal relationships, as well as normal causality models, to address the effects that resources from both the workplace and home contribute to work-life balance and job and family well-being.

There were longitudinal associations between organisation support and work-life balance (enrichment, balance, and conflict) and organisation support and job satisfaction. Organisations that recognise that employee’s needs beyond the work environment are important are more likely to create a workplace culture that assists employees to perceive that their work and non-work lives are balanced. Wayne et al. (2006) suggested that this type of informal supportive culture was more applicable to work enriching non-work domains than the provision of formal policies. The findings from the current research also support Allen’s (2001) research, which suggested that a family-supportive culture not only encourages enrichment, it also can reduce work-life conflict. Previous research has examined enrichment from the work-family direction rather than the family-work direction (Aryee et al., 2005; Hakanen et al., 2011), whereas the current research recognises the importance of the family domain to work environment.

This research identified reciprocal relations between family support and family-work enrichment, and family support and family satisfaction. These reciprocal gain spirals suggest that a supportive family environment spills over to create a positive work environment, which provides further resources in the form of family
satisfaction. This lends support to Hobfoll’s (2011) conservation of resources theory that resources gather in resource caravans, whereby an individual who has resources is more able to gain further resources. Furthermore, there were reversed effects from family satisfaction to family-work enrichment and from job satisfaction to both directions of enrichment (family-work and work-family). De Lange et al. (2004) suggested that reversed effects of mental health could be due to the fact that healthy workers are more likely to create positive experiences in their workplace than workers who are not happy. Therefore, employees who are satisfied with their jobs are more likely to experience that their work enriches their non-work and family lives than employees who are dissatisfied. Similarly, individuals who are happy and satisfied with their family and non-work lives are more likely to feel that their family lives value-add to their work experiences. de Lange et al. suggested a further process to explain the reversed effect of well-being to job characteristics, one which “focuses on the changes in the evaluation of the same work environment (i.e., the person’s perception of the same working conditions changes as a result of their mental health status)” (p. 162). Therefore, dissatisfied employees or family members perceive that they receive very little support from their organisation and/or family and perceive their work and/or family environment “in an increasingly gloomy fashion” (de Lange et al., 2004, p. 162).

All variables utilised in the longitudinal analyses had moderate to strong correlations between T1 and T2 counterparts. Thus, the reverse causality effects of, for instance, job satisfaction at T1 predicting changes in work-family enrichment and family-work enrichment at T2, (after controlling for T1 – T2 stability effects), and family satisfaction predicting changes in family-work enrichment at T2 were relatively small. This is a common occurrence in longitudinal analysis, especially
because most constructs are relatively stable across a one-year time lag (de Lange et al., 2004). Nonetheless, the cumulative effects of these relationships over time (i.e., supportive work-family organisational culture on enrichment and job satisfaction) cannot be underestimated, and maintaining a positive work environment may produce real and lasting effects on employees’ well-being.

**Limitations of this Research**

Findings of the present study should be considered in light of some limitations. First, a limitation of this research was the reliance of self-report measures, which might have several disadvantages. A proportion of shared variance exists amongst variables that are measured in a similar manner, which can lead to an overestimation of correlations, due to the action of common method variance (Spector, 2006). This may artificially inflate relationships between the latent variables, and bias the results (Spector, 2006). Several techniques have been suggested to control common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). For example, the present research used scales with different response formats, which helps decrease consistency bias (Spector, 2006). As the common method variance concerns are usually always related to cross-sectional, self-report survey usage (Spector, 2006), the use of longitudinal methodology limits the risk of common method variance, as stable elements of shared variance are controlled for (Podsakoff et al., 2003). Furthermore, Podsakoff et al. (2003) suggested that the questionnaire advise participants that their responses would remain anonymous and that there was no correct or wrong answer was employed by this research, as this mitigates the risk for common method variance. The present research also used structural equation modelling, which Kenny (2008) argued reduces the effects of common method
variance. Therefore, the present research has used a range of techniques, methods and analysis to ensure that common method variance is less likely.

Second, the sample had a greater proportion of female employees (3:1 ratio to males), which may have influenced the results. There has been mixed results for gender within the work-life research field, with some studies reporting that women report higher levels of work-life conflict than men, whereas other studies have shown that men and women share similar experiences with work-life conflict (Eby et al., 2005). In a recent meta-analysis, Byron (2005) suggested that gender and marital status were poor predictors of work-family conflict. Although, the present study found that the outcome variables of job and family satisfaction did not significantly differ according to gender, these results should be viewed with caution, as they may not generalise to other research, or samples, or cultures.

Finally, the study sample for this research was obtained from teachers in one area of Queensland, Australia. This limits generalisability to teachers from other areas and may not have represented this sector fully. Further replication in private sector organisation, in different organisational settings, is needed to test the merits and validity of these results.

**Practical Implications**

The results of this research have both theoretical and practical significance. Understanding the mechanisms that enable individuals to achieve work-life balance assists researchers to develop interventions to help individuals and organisations decrease conflict, increase enrichment and perceive balance, and, thus increase well-being in both the work and non-work domains. Organisational interventions are required to increase resources and decrease demands. Furthermore, linking work and non-work issues is an opportunity for organisations to redesign work in a
fundamentally innovative and equitable way, which can benefit the organisation and individuals personal lives. There is a need to shift the paradigm of the ideal worker as one who spends long hours in the workplace regardless of family commitments (Brough et al., 2008), to the ideal worker as one who integrates work with family care and is able to meet productivity and caring needs (Crozier-Durham, 2008).

Research has suggested that having a family-supportive workplace culture, which encourages the use of available workplace policies can often improve employees’ experience of work-life conflict (Bellavia & Frone, 2005). Therefore, it is important for employers to implement flexible working schedules, offer family-friendly policies, and actively encourage their employees to use them (Bellavia & Frone, 2005). Identifying employees who are having difficulty balancing their work and non-work lives and introducing training to assist them reduce their work-life conflict would be advantageous. Instrumental and emotional support from a supervisor, as well as general support from a supervisor and work colleague, will help reduce conflict and also increase levels of work-life enrichment. Training could also include a component of “looking out for your workmate”, by offering support when they see a subordinate or colleague struggling with balancing their work and non-work lives (Bellavia & Frone, 2005).

Hammer, Kossek, Anger, Bodner, and Zimmerman (2011) were one of the first research teams to implement a work-family intervention, which was designed to increase employee perceptions of family-specific support in order to increase job satisfaction, decrease intentions to turnover, and improve physical health. The purpose of the training was to increase supervisors’ motivation to interact with employees and support their work-family needs. Hammer et al. found positive effects were observed for employees with greater family-work conflict (i.e., higher job
satisfaction and less intention to turnover) but not for employees with little or no family-work conflict. Therefore, the intervention only worked for some employees and not others. Perhaps, this was due to the fact that Hammer et al. only considered family needs, rather than other non-work needs, whereas future interventions could emphasise the importance of all non-work needs. Furthermore, supervisors could be trained to identify those employees who were struggling to meet the demands of their various roles, and provide more tailored interventions to meet the needs of these employees.

The present research provides insights that can expand and change organisational practice. Rather than the focus being on difficulties in managing work and family roles, shifting the focus to the benefits that non-work roles bring to the workplace could help managers and supervisors take advantage of this knowledge to transform the culture of the organisation. Interventions, such as training supervisors to understand that family and non-work roles could contribute to workplace performance and job satisfaction because these other roles can “energize an employee for work, can make the employee more efficient, provide opportunities to acquire new skills and behaviour that help them perform well at work, and … help them put work related problems in to perspective” (van Steenbergen et al., 2007, p. 295).

Antecedents that support a healthy work environment include workplace social support, job control (i.e., control over how, where, and when one works), and a positive work culture that values employees feeling energised and performing well in both work and personal lives. Organisational interventions should focus predominantly on job control, social support, and improving workplace culture in order to create a healthy work environment. Employees in healthy work environments are more likely to perceive that their work demands are not excessive
and that their non-work lives do not have to be neglected in order to be productive employees (Kossek, Kalliath, & Kalliath, 2012). Kossek et al. (2012) suggested that outcomes associated with healthy work environments include job and family satisfaction, depressive symptoms, and positive and negative spillover between work and non-work roles.

The results of the current research have highlighted the need for organisations to be more mindful of the individual requirements of their employees. Having formal policies alone, such as flexible working hours and working from home, are not enough on their own. There still exists a perception that individual employees will be penalised in some way for requesting this, such as not being considered for promotion or deemed as not being committed to their career (Dikkers et al., 2007). In Australia, there has been an array of flexible working schedules negotiated through collective bargaining, which demonstrates that, in theory, there is no opposition to the implementation of these policies (Thornwaite, 2004). However, the Australian Federal government’s stated goal of eliminating industry bargaining requires that the implementation of these policies be reliant on “management sensitivity to work-family challenges, senior management commitment, and a culture of efficient management practice” (Thornwaite, 2004, p. 181). Furthermore, all employees, not only those with dependent children and parents, should be encouraged to apply for flexible working schedules, as this will avoid a potential backlash from employees who feel that they miss out because they do not have children to pick up from school or who perceive that flexible working policies are directed toward employed parents only.

There are clear benefits for employees to be able to work “wherever it makes sense” (Hill et al., 2003, p. 222). New technology (i.e., computer and communication
devices) has the potential to support flexible working strategies, and reduce work-life conflict (Chesley, 2005). It allows the individual the opportunity to be able to leave work to attend to family needs, and catch up with work later, and it allows employees the opportunity to keep in touch with family members and other non-work commitments whilst at work. However, some researchers believe that new technology also has the potential to blur the boundaries between work and non-work life, suggesting that employers have increased access to their employees (Chesley, 2005). Hill et al. (2003) suggested that employees who are encouraged to work from home, as a means of increasing work-life balance, should receive some training in managing the boundaries between work and non-work domains. However, Chesley (2005) suggested that computer technology (i.e., receiving emails or working on reports) was less likely to cause distress to the family situation, as the employee could choose when to work, whereas being contactable by phone or pager was more likely to lead to increased perception of work-life conflict. Therefore, employers need to be aware of the different ways of accessing their employees outside of work hours.

Overall, allowing employees to work from home has the potential to increase work-life balance, as long as employees are able to establish boundaries to do so (Hill et al., 2003).

The current research has identified the importance that family support provides to individual and family well-being, and how a supportive family benefits the workplace via family-work enrichment. Therefore, organisations could implement training days to help employees harness family support, such as the use of effective communication to get their needs met. Similarly, strategies learned in the workplace, such as organisation and time management skills could be transferred to non-work
domain to help busy employees manage their lives more effectively outside the workplace.

Individuals must also take responsibility to manage their work-life balance needs. Kossek et al. (2012) suggests that employees need training to learn how to *self-regulate* their increasingly complex work and non-work demands. Employees, who proactively manage the boundaries between their work and personal, so that they can better focus at work, are more likely to feel less stressed and be able to leave work early to attend to other needs.

Kossek and Lautsch (2008), in their book *The CEO of Me*, coined the term *flexstyle*, which they define as a strategy to handle one’s life as well as the motivation to understand the interplay of one’s work and personal relationships. They suggest that there are three different flexstyles: (a) the *integrators* who blend work and life, (b) the *separators* who segment their work and non-work live by creating barriers, and (c) the *volleyers* who switch between integration and separation. Kossek and Lautsch suggest that individuals can identify which flexstyle they currently use and whether it works for them or not. For example, a single mother, who identifies as an integrator, struggles when she has to pick her child up from school and has no other support system in place. As flexstyles are dynamic, and dependent on stage in the lifecycle, this employee could be encouraged to re-evaluate how she works, and explore a new flexstyle. This single mother may decide that working from home for some time during the working week may assist her manage her work and family demands.

As the flexstyle concept is individualistic in nature, it is up to the individual to work out how much time and effort that they require in each role. However, flexible working is not an option for many employees, and employees would need to feel that their organisation supports their requests to ask for flexibility to attend to dependent
Almost all large employers are aware of legislation regarding employees’ right to request flexible work arrangements. However, only about half of all employees (including those who had children and were eligible) were aware of the right they had (O’Neill, 2012). Information provided by the employer was their main source of information. Therefore, employers who practice corporate social responsibility could advise their employees of these rights and encourage them to use them when necessary.

Work-life research examines both the positive and negative aspects, and the antecedents and outcomes, relating to work and family/life roles (Kossek, Baltes, & Matthews, 2011). Although research in this field has been prolific, there is little evidence that the lives of employees have improved. Kossek et al. (2011) suggest that there is an implementation gap between research and applied practice. It is known that positive organisational culture and supervisor support, as well as employee control over where and when they work, are key elements in balancing work and non-work roles. It is not enough to apply new ways of thinking about workplace flexibility to the existing workplace structures; there needs to be a deeper cultural change and redesign of work that incorporates the benefits that accompany the changes (Crozier-Durham, 2008).

**Directions for Future Research**

Since this study is the first to extend Frone’s conceptualisation of work-life balance to include balance as a fifth component, additional research should assess the robustness of the present findings using different organisational contexts and different samples of occupations. This research identified some strong antecedents of work-life balance, such as having a supportive organisational culture that recognised the importance, needs, and benefits of their employees’ non-work roles. Implementing
flexible working policies allows employees to manage their personal lives and gives employees some control over where and when they work. However, merely having policies in place is not enough, as many employees feel that asking their supervisor for added flexibility may signal that they are not dedicated to their job (Dikkers et al., 2004; Jo, 2008; McDonald et al., 2005), or uptake may be low if it is at the discretion of individual supervisors (Jo, 2008). Therefore, future research could examine the link between perceived organisational support for family and personal lives, assess employee’s need for flexible working policies, and whether this need is met or not, and perceived work-life balance, using the five components of work-life balance identified in this research.

Hill et al. (2008) examined the link between life-stage, workplace flexibility, and gender and family-work conflict, stress, and burnout. They found that the addition of life stage variables explained significantly more variance in family-work conflict, stress, and burnout. Hill et al. defined the concept of life stage as “the ebb and flow of family responsibilities over the life course” (p. 171), and operationalised life stage as five stages: (a) individuals who do not have children and are under the age of 35, (b) presence of children 0 – 5 (preschool) and no older children, (c) presence of preschool children plus older school age children (6 – 17), (d) presence of children 6 – 17 only, and (e) individuals who do not have children under 18 and are more than 45 years old. Although the current research found little or no difference for gender in the models, Hill et al. found a curvilinear relationship in differences between men and women when life stage was considered. A gender difference for the use of flex-time was more prevalent for women with pre-schoolers or pre-schoolers and older children at home, whilst no gender differences were apparent for stage (a) and stage (e) men and women. All employees at all stages of life valued flexible
working. The research by Hill et al. did not include positive outcomes, for example job and family satisfaction, nor did they examine the effect that enrichment may have played in relation to life stage. Therefore, future research could examine the links between life-stage, supportive organisational culture, family support, with components of work-life balance, and well-being in the work and non-work domains.

A gap in the literature, which has not been covered by this research, is individual differences in the way that people balance their work and non-work domains (Wayne et al., 2004). Wayne et al. (2004) found that personality traits (using the Big Five personality inventory) predicted the degree to which individuals experience conflict and enrichment. Furthermore, they suggested that the different personality traits related to bi-directional conflict and enrichment in a distinct manner. For example, neuroticism was related to both directions of conflict but not to facilitation, whilst extraversion related to both directions of facilitation, but had no relationship with conflict. Therefore, employees’ experiences of work-life balance are not only influenced by work and non-work characteristics, they are also a result of individual characteristics.

Personality traits can be viewed as individual resources (i.e., self-efficacy, locus of control, positive and negative affect) that contribute to how individuals deal with complexity and create work-life balance (Crooker, Smith, & Tabak, 2002). For example, self efficacy refers to individuals’ beliefs and judgements about their ability to master a situation or deal effectively with a problem (Bandura, 1982). Therefore, individuals with high self-efficacy are more likely to have inner resources to manage challenges, and are more likely to perceive that their work and non-work lives are balanced (Crooker et al., 2002). In the same way, individuals with positive affect have the tendency to see themselves, others, and events in a more positive light;
whereas individuals with negative affect tend to focus on negative aspects of their life and are more likely to find fault with their situation, which may lead to lower perceptions of work-life balance. Therefore, future research should focus on which personality variables specifically relate to enrichment (i.e., self-efficacy and positive affect) and which variables relate to more conflict (i.e., negative affect). This would enable organisations to target interventions to assist employees improve their coping skills via employee assistant programs, for instance (Crooker et al., 2002).

**Conclusion**

In conclusion, the present study has made some important contributions regarding the perception of work-life balance experienced by Australian employees and its impact on job and family satisfaction. It has contributed by validating an empirically sound instrument that identifies an individual’s global assessment of work-life balance, which is distinct from work-life conflict and work-life enrichment. This research has provided a new lens through which to view work-life balance by testing a new model that includes antecedents and consequences of work-life balance from work and non-work domains simultaneously. This theoretical model has practical applications, and interventions can be designed to improve work-life balance for employees and increase well-being. The results of this research demonstrated the importance of examining the positive side of work-life balance: that combining multiple roles can be beneficial and energising, and that work can enrich non-work roles and non-work roles can enhance work roles. This research found evidence that family/non-work roles contribute to an employee’s well-being at work. Organisations that recognise employees’ personal lives are important to the individual and to the workplace can create a workplace culture that supports their employees to manage
their work-life balance. On the principle of reciprocity, organisations are rewarded by having happier and more productive employees.

To conclude, this study has identified factors from the work and non-work domains that decrease work-life conflict, increase work-life enrichment, and create a sense of balance for an individual, which can improve their well-being. The findings of this thesis have theoretical as well as practical implications for individuals, their families, organisation policy and training, as well as wider community and government initiatives to keep work-life balance firmly on the research agenda.
Appendix: Work-Life Balance Survey

The aim of this survey is to find out which work and life demands influence health, work performance and family outcomes, as well as identify which work-life policies are of most value to employers and employees.

Remember that no personally identifiable information will be collected on the survey (other than general demographic and work role information). All participation is voluntary and entirely confidential.

In order to ensure that your responses can be matched over time, you will create a codeword to be included on each survey.

**How to create your codeword**

First 3 letters of your mother’s maiden name e.g., if your mother’s maiden name was Solomon = sol

Date of your birth e.g., if you were born on the 17\(^{th}\) = 17; if you were born on the 4\(^{th}\) = 04

First 3 letters of the month of your birth e.g., If you were born in January = jan

Your code word would then be: sol/17/jan

**Create your code word**

```
______________/_______/__________
```

First 3 letters of mothers maiden name/date of your birth/first 3 letters of the month of birth
Work Family Conflict

The following items ask you to think about the demands on your time and energy from both your job and your family/life commitments. Use the response scale below to answer the question.

1 = Strongly disagree  2 = Disagree  3 = Neutral  4 = Agree  5 = Strongly agree

<table>
<thead>
<tr>
<th>Please tick your response</th>
<th>Strongly Agree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My work keeps me from my family/life activities more than I would like.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5</td>
<td></td>
</tr>
<tr>
<td>2. The time I must devote to my job keeps me from participating equally in household responsibilities and activities.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5</td>
<td></td>
</tr>
<tr>
<td>3. I have to miss family/life activities due to the amount of time I must spend on work responsibilities.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5</td>
<td></td>
</tr>
<tr>
<td>4. The time I spend on family/life responsibilities often interferes with my work responsibilities.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5</td>
<td></td>
</tr>
<tr>
<td>5. The time I spend with my family/life often causes me to not spend time in activities at work that could be helpful to my career.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5</td>
<td></td>
</tr>
<tr>
<td>6. I have to miss work activities due to the amount of time I must spend on family/life responsibilities.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5</td>
<td></td>
</tr>
<tr>
<td>7. When I get home from work I am often too frazzled to participate in family/life activities/responsibilities.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5</td>
<td></td>
</tr>
<tr>
<td>8. I am often so emotionally drained when I get home from work that it prevents me from contributing to my family/life.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5</td>
<td></td>
</tr>
<tr>
<td>9. Due to all the pressures at work, sometimes when I come home I am too stressed to do the things I enjoy.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5</td>
<td></td>
</tr>
<tr>
<td>10. Due to stress at home, I am often preoccupied with family/life matters at work.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5</td>
<td></td>
</tr>
<tr>
<td>11. Because I am often stressed from family/life responsibilities, I have a hard time concentrating on my work.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5</td>
<td></td>
</tr>
<tr>
<td>12. Tension and anxiety from my family life often weakens my ability to do my job.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5</td>
<td></td>
</tr>
<tr>
<td>13. The problem-solving behaviours I use in my job are not effective in resolving problems at home.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5</td>
<td></td>
</tr>
<tr>
<td>14. Behaviour that is effective and necessary for me at work would be counter-productive at home.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5</td>
<td></td>
</tr>
<tr>
<td>15. The behaviours I perform that make me effective at work do not help me to be a better parent and spouse.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5</td>
<td></td>
</tr>
<tr>
<td>16. The behaviours that work for me at home do not seem to be effective at work.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5</td>
<td></td>
</tr>
<tr>
<td>17. Behaviour that is effective and necessary for me at home would be counter-productive at work.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5</td>
<td></td>
</tr>
<tr>
<td>18. The problem solving behaviours that work for me at home do not seem to be as useful at work.</td>
<td>[ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5</td>
<td></td>
</tr>
</tbody>
</table>
Work Family Demands

These questions evaluate the demands that your work and family make on you. Please use the response scale below to answer the questions.

\[
1 = \text{Strongly disagree} \quad 2 = \text{Disagree} \quad 3 = \text{Neutral} \quad 4 = \text{Agree} \quad 5 = \text{Strongly agree}
\]

<table>
<thead>
<tr>
<th>Please tick your response</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My job requires all of my attention.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>2. I feel like I have a lot of work demand.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>3. I feel like I have a lot to do at work.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>4. My work requires a lot from me.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>5. I am given a lot of work to do.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>6. I have to work hard on family-related activities.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>7. My family requires all of my attention.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>8. I feel like I have a lot of family demand.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>9. I have a lot of responsibility in my family.</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td></td>
</tr>
</tbody>
</table>

Job satisfaction

These questions ask satisfied you are with your current job. Use the response scale below to answer the question.

\[
1 = \text{Strongly disagree} \quad 2 = \text{Disagree} \quad 3 = \text{Neutral} \quad 4 = \text{Agree} \quad 5 = \text{Strongly agree}
\]

<table>
<thead>
<tr>
<th>Please tick your response</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In general I don't like my job</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>2. All in all I am satisfied with my job</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>3. In general I like working here</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td></td>
</tr>
</tbody>
</table>
Work Life Balance

Use the response scale below to answer the question.

0 = Disagree completely 1 = Rarely agree 2 = Disagree 3 = Neutral
4 = Agree 5 = Often agree 6 = Agree completely

When I reflect over my work and non-work activities (non-work includes your regular activities outside of work such as family, friends, sports, study etc), over the past 3 months, I conclude that:

<table>
<thead>
<tr>
<th>Please tick your response</th>
<th>Disagree completely</th>
<th>Agree completely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I currently have a good balance between the time I spend at work and the time I have available for non-work activities</td>
<td>☐ ☐ ☐ ☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>2. I have difficulty balancing my work and non-work activities</td>
<td>☐ ☐ ☐ ☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>3. I feel that the balance between my work demands and non-work activities is currently about right</td>
<td>☐ ☐ ☐ ☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>4. Overall, I believe that my work and non-work life are balanced.</td>
<td>☐ ☐ ☐ ☐ ☐ ☐ ☐</td>
<td></td>
</tr>
</tbody>
</table>

Use the response scale below to answer the following:

1 = Work more than non-work activities 2 = Work somewhat more than non-work activities
3 = Work and non-work activities equally somewhat more than work 4 = Non-work activities
5 = Non-work activities much more than work

<table>
<thead>
<tr>
<th>Please tick your response</th>
<th>Work</th>
<th>Non-work</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. What is the relative importance to you of your work and non-work activities?</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>6. Are work or non-work activities more prominent to you at the moment?</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>7. Do you currently receive more value (e.g., self esteem, satisfaction) from your work or non-work activities?</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td></td>
</tr>
</tbody>
</table>
Work Family Enrichment

These questions ask you to think about the positive side of balancing work and family commitments. Use the response scale below to answer the question.

1 = Strongly disagree  2 = Disagree  3 = Neutral  4 = Agree  5 = Strongly agree

Please tick your response

<table>
<thead>
<tr>
<th>Please tick your response</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>My involvement in my work:</strong></td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>1. Helps me to understand different viewpoints and this helps me to be a better family member</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Helps me to gain knowledge and this helps me to be a better family member</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Helps me acquire skills and this helps me to be a better family member</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Puts me in a good mood and this helps me to be a better family member</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Makes me feel happy and this helps me to be a better family member</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Makes me cheerful and this helps me to be a better family member</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Helps me feel personally fulfilled and this helps me to be a better family member</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Provides me with a sense of accomplishment and this helps me to be a better family member</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Provides me with a sense of success and this helps me to be a better family member</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>My involvement in my family:</strong></td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>10. Helps me gain knowledge and this helps me to be a better worker</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Helps me acquire skills and this helps me to be a better worker</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Helps me expand my knowledge of new things and this helps me to be a better worker</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Puts me in a good mood and this helps me to be a better worker</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Makes me feel happy and this helps me to be a better worker</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Makes me cheerful and this helps me to be a better worker</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Requires me to avoid wasting time at work and this helps me to be a better worker</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Encourages me to use my work time in a focused manner and this helps me to be a better worker</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Causes me to be more focused at work and this helps me to be a better worker</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Work and Family Support

*These questions ask about the support you receive from other people about work-related problems. Using the response scale below indicate how you were provided with the following support during the past 3 months?*

|----------|----------------------|--------------|---------|--------------|----------------|

### Please tick your response

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>How often did you get the following support from your supervisor?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. helpful information or advice?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. sympathetic understanding and concern?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. clear and helpful feedback?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. practical assistance?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How often did you get the following support from your colleagues?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. helpful information or advice?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. sympathetic understanding and concern?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. clear and helpful feedback?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. practical assistance?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How often did you get the following support from your family?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. helpful information or advice?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. sympathetic understanding and concern?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. clear and helpful feedback?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. practical assistance?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Organisational Culture

*Use the response scale below to answer the question.*

1 = Totally disagree  2 = Disagree  3 = Neutral  4 = Agree  5 = Totally agree

<table>
<thead>
<tr>
<th>Please tick your response</th>
<th>Totally Agree</th>
<th>Totally Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Managers in this organization are generally considerate towards the private life of employees</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. In this organization, people are sympathetic towards care responsibilities of employees</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. In this organization it is considered important that, beyond their work, employees have sufficient time left for their private life</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. This organization is supportive of employees who want to switch to less demanding jobs for private reasons</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5. To get ahead at this organization, employees are expected to work overtime on a regular basis</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6. In order to be taken seriously in this organization, employees should work long days and be available all of the time</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>7. In this organization, employees are expected to put their job before their private life when necessary</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>8. Employees who (temporarily) reduce their working hours for private reasons are considered less ambitious in this organization</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>9. To turn down a promotion for private reasons will harm one’s career progress in this organization</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>10. Employees who (temporarily) reduce their working hours for private reasons are less likely to advance their career in this organization</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>11. In this organization, it is more acceptable for women to (temporarily) reduce their working hours for private reasons than for men</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Family Satisfaction

The following items ask you to reflect on how satisfied you are with your family/home life. Use the response scale below to answer the question.

1 = Strongly disagree  2 = Moderately disagree  3 = Slightly disagree
4 = Neutral  5 = Slightly agree  6 = Moderately agree  7 = Strongly agree

Please tick your response

<table>
<thead>
<tr>
<th>Please tick your response</th>
<th>Strongly Agree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In general, I am satisfied with my family/home life</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. All in all, the family/home life I have is great</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. My family/home life is very enjoyable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Demographics**

*Please tick the most appropriate box or write your answer in the space provided.*

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Are you male or female?</strong></td>
<td>□ Male</td>
</tr>
<tr>
<td><strong>2. How old are you?</strong></td>
<td>Please state: ________________ (years)</td>
</tr>
<tr>
<td><strong>3. What is your current marital status?</strong></td>
<td>□ Single/never married</td>
</tr>
<tr>
<td><strong>4. If married/cohabitating, does your spouse/partner work outside the home?</strong></td>
<td>□ Yes full-time</td>
</tr>
<tr>
<td><strong>5. What is your highest grade or academic level completed?</strong></td>
<td>□ Secondary education</td>
</tr>
</tbody>
</table>

**Working week and household responsibilities**

*Please tick the most appropriate box or write your answer in the space provided.*

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. How many hours do you normally work in a typical week?</strong></td>
<td>Please state: ________________</td>
</tr>
<tr>
<td><strong>2. How many days per week do you work in a typical week?</strong></td>
<td>Please state: ________________ (days per week)</td>
</tr>
<tr>
<td><strong>3. How is your work classified?</strong></td>
<td>□ Full time</td>
</tr>
<tr>
<td><strong>4. What is the number and age of the dependants you care for in your home?</strong> (children, parents, other e.g., disabled adults)</td>
<td>Children</td>
</tr>
<tr>
<td>Number</td>
<td>Number</td>
</tr>
<tr>
<td>__________</td>
<td>__________</td>
</tr>
<tr>
<td>Age/s</td>
<td>Age/s</td>
</tr>
<tr>
<td>__________</td>
<td>__________</td>
</tr>
</tbody>
</table>
References


Cambridge MA: Sloan School of Management, Massachusetts Institute of Technology.


doi:10.1016/j.jvb.2004.08.009


Kossek, E., Pichler, S., Bodner, T., & Hammer, L. (2011). Workplace social support and work-family conflict: A meta-analysis clarifying the influence of general


doi:10.1080/13668800600586985


doi:10.1108/00483480310467606


doi:10.1111/0033-3352.00049


doi:10.1108/00483481111106110


Webster, J. (2004). Working and living in the knowledge society: The policy implications of developments on working life and their effects on social relations *Infowork*. Dublin: Department of Sociology, Trinity College.


Management Journal, 43, 113-124. Retrieved from
stress research: A review of the literature with reference to methodological
doi:10.1037/1076-8998.1.2.145
Relationships at school and stage-environment fit as resources for adolescent
Zimmerman, K., & Hammer, L. (2010). Work-family positive spillover. Where have
we been and what lies ahead. In J. Houdmont & L. Stavroula (Eds.),
Contemporary occupational health psychology: Global perspectives on