

**Flexible Work Arrangements: Exploring the Linkages between  
Perceived Usability of Flexible Work Schedules and Work/Life Balance**

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## **Flexible Work Arrangements: Exploring the Linkages between Perceived Usability of Flexible Work Schedules and Work/Life Balance**

The relationship between the perceived usability of flexible work schedules and work/life balance were explored with 710 office based employees. Furthermore, the direct effects of a variety of flexible work arrangements on work/life balance were assessed. Direct linkages were found between perceived usability of flexible work schedules and the three dimensions of work/life balance (work interference with personal life, personal life interference with work, and work/personal life enhancement). In addition, employees operating under flexitime work schedules displayed significantly higher levels of work/life balance than their counterparts utilising traditional fixed-hour schedules. However, non significant differences in the levels of work/life balance were found between two other flexible work schedules (flexiplace and job share) and fixed-hour work schedules. Consequently, while individual flexible work schedules may have a marginal overall positive impact on employee work/life balance, the perceived usability and availability of these work schedules appears to be a key element in achieving work/life balance for many office based employees. The implications for employees, organisations and future research are discussed.

**Key words:** Work/life balance, strategic human resource management, flexible work arrangements.

The impact of flexible work arrangements on employee and organisational outcomes has been well documented. For instance, research (Rubin 1979; Ronen & Pimps 1981; Stains & Pleck 1986; Barber, Dunham & Formisano 1992; Pierce & Dunham 1992; Baltes, Briggs, Huff, Wright & Neuman 1999) examining the impact of flexible work arrangements has generally shown that these initiatives have a positive influence on the work and non work attitudes of employees. However, these results are not supported by other studies. For example, empirical investigations (e.g., Hicks and Klimoski 1981; Dunham, Pierce & Castaneda 1987; Hill, Miller, Weiner & Colihan 1998) exploring the work related benefits of flexible work arrangements have concluded that in some cases these initiatives can have little influence on employee attitudes. To better understand the results from previous flexible work arrangement investigations attention has increasingly focused on the underlying elements of flexible work practices that may attribute to positive employee outcomes. Indeed, some work/life researchers (Hyland 1999; Eaton & Bailyn 2000; Eaton 2003) have suggested that the perceived usability of flexible work schedules may be

a possible underlying mechanism of flexible work arrangements that has the potential to impact employee attitudes. Therefore, the purpose of this study is to gain a better understanding of how perceived usability of flexibility policies influences the work/life balance of office based employees in an Australian work setting. This is appropriate given that the majority of empirical investigations exploring work/life balance stem from North America (For example, Frone, Russell & Cooper, 1992; Hill et al. 1998; Grzywacz & Marks 2000; Podratz 2004; Lewison 2006), and Australia is generally considered to be under represented in the work/life literature.

## **HYPOTHESES**

### **Perceived Usability and Work/Life Balance**

Organisational flexible work initiatives may not be enough to create job flexibility, and thus, influence employee work/life balance. Indeed, flexible work policies that influence employee control may not be applied consistently and employees may still fear that the use of a particular policy will generate reprisals (Rodgers 1992; Bailyn 1993). For example, in some work situations employees may feel that by utilising organisational flexible and family friendly policies that their future chances of promotion or career advancement could be adversely affected (Eaton 2000; Solomon 1994). In situations where flexible work programmes are inconsistently administered the employee's may not receive the benefits traditionally associated with flexible work initiatives, such as work/life balance. Moreover, a lack of consistency from supervisory management to implement flexible work programmes may result in perceived stress when trying to balance personal and working life (Kossek, Barber & Winters 1999). Consequently, there is a growing consensus in the work/life literature (Bailyn 1989; Hyland 1999; Eaton 2003) that employees must also feel free to use the organisation's flexible work policies without negative consequences for their career to have a positive impact on employee attitudes. This argument supports the prediction that perceived usability of flexible work programmes will enhance employee work/life

balance perceptions. In this study, work/life balance is conceptualised based on previous research (Fisher-McAuley, Stanton, Jolton & Gavin 2003; Hayman 2005) that includes the negative influence of work on personal life as well as positive enhancement between work and non work. These researchers conclude that work/life balance is comprised of three dimensions: work interference with personal life (WIPL), personal life interference with work (PLIW), work/personal life enhancement (WPLE). Therefore, it is suggested that perceived usability of flexible arrangements will be related to three dimensions of work/life balance. These points of view underpin the following hypotheses:

*Hypothesis 1: Perceived usability will be inversely related to WIPL.*

*Hypothesis 2: Perceived usability will be inversely related to PLIW.*

*Hypothesis 3: Perceived usability will be positively related to WPLE.*

### **Flexible Work Arrangements and Hypotheses**

Evidence presented in the literature suggests that greater autonomy provided to employees with the use of flexible work schedules can provide employees with positive outcomes (Ronen & Pimps 1981; Pierce, Newstorm, Dunham & Barber 1989; Barber, et al. 1992; Rodgers 1992; Baltes, et al. 1999). In addition, it has also been suggested that greater work schedule flexibility will lead to enhanced work/life balance perceptions for professional employees (Tausig & Fenwick 2001; Baker, Avery & Crawford 2007). Flexible work programmes offer employees more flexibility and work schedule control than traditional working hours (Ronen 1981). Therefore, it is logical to assume that organisational programmes that offer employees greater flexibility (e.g., flexitime, flexiplace and job sharing) should provide employees with a better ability to balance work and non work responsibilities compared to their counterparts working on traditional fixed hour schedules. These arguments imply the following hypotheses:

*Hypothesis 4: Employees utilising flexitime work schedules will display significantly higher levels of work/life balance compared to employees operating on standard fixed hour schedules.*

*Hypothesis 5: Employees utilising flexiplace work schedules will display significantly higher levels of work/life balance compared to employees operating on standard fixed hour schedules.*

*Hypothesis 6: Employees utilising job share work schedules will display significantly higher levels of work/life balance compared to employees operating on standard fixed hour schedules.*

## **METHOD**

### **Sample and Procedures**

Data were collected from administrative employees in a large University in Western Australia, as part of a wider study exploring work and non work integration. Questionnaires were placed in the internal mailbox of each of the respondents. A total of 1190 questionnaires were administered to employees in six divisions of the university over a two week period to reduce the possibility of common method variance. In total, 710 self report questionnaires were returned, indicating a response rate of almost 60 percent. The response rate is agreeably better than response rates from surveys using samples of Australian data (e.g., Abernethy 1996, Pearson & Duffy 1998), arguably because of the support received from senior management at the university and because the university executives are conscious of exposing staff to extensive in house surveys, resulting in a more than acceptable response rate.

A prominent feature of the sample characteristics was the majority of respondents were female (64 percent of respondents), reflecting the nature of the administrative staff employed within the university (*Healthy Life Style Office* 2002). Another feature of the sample was that all age groups were represented. For example, the less than 30 age group accounted for 17.2 percent of the sample, the 30-39 age group were 35.1 percent of the respondents, the 40-49 age group was 25.4 percent of the final sample, with the remaining 22.3 percent of respondents over 50 years of age. University degrees were held by 53 percent of respondents. The respondents utilised a variety of

work schedules including flexitime (nearly 43 percent of respondents), flexiplace (14 percent of respondents), job share (8.5 percent of respondents), and standard fixed hour schedules (34.5 percent). Flexiplace or telecommuting arrangements were used for 1.5 days per week on average by staff and the average length of participation in the relevant work schedule was 5.20 years. A final feature of the sample was that just over 58 percent of respondents had children living at home, and nearly 12 percent of survey staff had eldercare responsibilities. Overall, the characteristics of the sample generally represented the demographics of the university's office base employees.

## **Measures**

### *Perceived Usability of Flexible Work Schedules*

The instrument used to measure perceived usability of flexible work policies was tailored from a dichotomous scale employed in a study by Eaton (2003). The perceived usability scale developed for this study comprised of seven items designed to capture employee perceptions whether they felt free to use and access the organisation's flexible work programmes. Responses were scored on a seven point Likert scale (ranging from 1=strongly disagree to 7=strongly agree). Sample questions include, "In general, I feel free to use the flexible work programmes provided by this organisation" and "using the organisations flexible work programmes will in no way jeopardise my future with the company". Exploratory factor analysis (principle components, Varimax rotation) and reliability estimates were performed to assess the psychometric properties of the scales. The factor analysis resulted in a single factor construct with eigenvalues of greater than one and item factor loadings ranging from .83 to .70 (eigenvalues = 3.69, accounting for 28.36 % of the variance). The reliability analysis resulted in a Cronbach alpha of .91 and all items in the scale met the .35 criterion for item-total correlation. The arithmetic mean was used to determine perceived usability, with higher scores indicating greater usability of flexible work practices being perceived by employees.

### *Work/Life Balance*

Employee work/life balance was measured with a 15 item scale adapted from an instrument reported by Fisher-McAuley, Stanton, Jolton and Gavin (2003). The original scale consisted of 19 items designed to assess three dimensions of work/life balance: work interference with personal life (WIPL), personal life interference with work (PLIW), work/personal life enhancement (WPLE). Respondents were asked to indicate the frequency with which they have felt in a particular way *during the past three months* using a seven point time related scale (e.g., 1=Not at all, 4=Sometimes, and 7=All the time). The factor analysis of the items confirmed the three dimensions of the work/life balance scale. The WIPL sub scale consisted of seven items that reported factor loadings ranging from .86 to .67 (eigenvalues = 5.16, accounting for 34.4 % of the variance). PLIW included four items reporting factor loadings ranging from .87 to 8.2 (eigenvalues = 3.24, accounting for 21.6 % of the variance). The WPLE sub scale contained four items and reported factor loadings of between .81 and .57 (eigenvalues = 2.26, accounting for 15.0 % of the variance). The item “because of my job, I am in a better mood at home” had a lower factor loading than desired (.57). However, this item was subsequently retained because it contributed positively to the reliability assessment. The final Cronbach alpha values for the three factors were .93 for WIPL, .90 for PLIW, and .77 for WPLE. Higher arithmetic means indicate that respondents report having experienced that situation more frequently. For the WIPL and PLIW sub scales higher means are purported to indicate lower levels of work/life balance. The WPLE sub scale is worded positively and higher means indicate higher levels of perceived work/life balance.

### **Data Analysis**

The hypothesised relationships between perceived usability of flexible work schedules and work/life balance (Hypotheses 1, 2 and 3) were tested using multiple regression. Specifically, linear regression was conducted to test the linkages between perceived usability and the three

work/life balance dimensions of WIPL, PLIW, and WPLE. Furthermore, to test the hypotheses relating to flexible work arrangements (Hypotheses 4, 5 and 6), analysis of variance (ANOVA) was performed. Specifically, mean score comparisons by ANOVA with accompanying means comparisons tests were undertaken for the three dimensions of work/life balance across individual work schedules (flexitime, flexiplace, job share and fixed operating schedules). In addition, demographic variables commonly used in the work/life literature were controlled for (Tausig & Fenwick 1993; Baltes, et al. 1999; Voydanoff 1998; Eaton 2003). These were age, gender, education, salary, tenure, parental status, hours worked, and management position. The results of the regression analysis and ANOVA to test the hypotheses are subsequently presented, starting with the descriptive statistics and bivariate correlations between the study variables.

## RESULTS

Descriptive statistics and bivariate correlations for all the study variables are shown in Table 1.

**Table 1: Descriptive Statistics and Correlations (n =710)**

Variable	Mean	s.d.	1	2	3	4
1. Perceived Usability	4.42	1.24	<b>.90</b>			
2. WIPL	3.34	1.49	-.46	<b>.93</b>		
3. PLIW	2.21	1.18	-.28	.48	<b>.89</b>	
4. WPLE	4.07	1.25	.44	-.59	-.37	<b>.77</b>

Notes: a. Correlations  $r \leq .16$ ,  $p \leq .05$ ;  $r \leq .20$ ,  $p \leq .01$ ; and  $r \leq .23$ ,  $p \leq .001$ .

b. Bold values on the diagonal are the reliability assessments.

c. s.d. = Standard deviations of the means

d. WIPL = Work interference with personal life, PLIW = Personal life interference with work, and WPLE = Work and personal life enhancement.

The results presented in Table 1 have two key features. The first key feature is the study variables were all assessed using seven point scales, with means score ranging from 4.42 to 2.21. Higher means generally indicate higher levels of the particular variable, with the exception of two



work/life balance constructs (WIPL and PLIW), which measure negative interference with work or personal life. Therefore, for these two constructs, lower mean scores represent higher levels of employee work/life balance. A second key feature of Table 1 is all of the examined variables are significantly inter correlated. Perceived usability is significantly correlated to WIPL ( $r = -.46, p < .001$ ), PLIW ( $r = -.28, p < .001$ ), and WPLE ( $r = .44, p < .001$ ).

The results of the regression analysis for Hypotheses 1, 2 and 3 are presented in Table 2. These results indicate that perceived usability of flexible work arrangements significantly relates to the dimensions of the work/life balance; WIPL, PLIW and WPLE (at the  $p < .001$  level). The amount of variance explained for the three assessments were 22 percent, 8 percent, and 19 percent; respectively, providing a reasonable level of confidence in interpreting the results for Hypotheses 1 and 3. However, the results for Hypothesis 2 should be interpreted with caution. Consequently, these results provide support for Hypotheses 1 and 3, and partial support for Hypothesis 2.

**Table 2: Regression Analysis for the Effect of Perceived Usability of Flexible Work Arrangements on WIPL, PLIW and WPLE (n=710)**

Independent Variable	Dependent Variable	Adjusted R Square	$\beta$	F	t
Perceived Usability	WIPL	.22	-.466	196.408	-14.015
	PLIW	.08	-.280	61.593	-7.848
Perceived Usability	WPLE	.19	.439	168.567	12.983

Notes: a.  $\beta$ = Beta, F= F statistic, t=t statistic.  
b. All regression results significant to the  $p < .001$  level.  
c. WIPL = Work interference with personal life, PLIW = Personal life interference with work, and WPLE = Work and personal life enhancement.

**Table 3: Means Comparisons for Work/Life Balance Dimensions (WIPL, PLIW and WPLE) by Individual Work Schedule**

Variable	Flexi- time	Flexi- place	Job Share	Fixed Hours	<u>Anova</u>		Means Contrasts
n	311	100	62	237	F	p<	Tukey p< 0.05
Group #	1	2	3	4			
WIPL	3.03 (1.42)	3.32 (1.48)	3.18 (1.45)	3.64 (1.51)	51.20	0.017	1,3<4
PLIW	2.04 (1.00)	2.11 (1.12)	2.27 (1.18)	2.31 (1.33)	15.25	0.081	n.s.
WPLE	4.34 (1.29)	4.10 (1.19)	4.16 (1.20)	3.85 (1.19)	35.56	0.033	1>4

Notes: a. n = Number of respondents.

b. Values in parentheses are the standard deviations of the means.

c. WIPL = Work interference with personal life, PLIW = Personal life interference with work, and WPLE = Work and personal life enhancement.

d. For WIPL and PLIW, lower mean scores indicate higher levels of work/life balance.

e. n.s. = Non significantly differences of mean scores.

Table 13 shows the means, analysis of variance test results, and the means contrasts for the three work/life balance dimensions across flexitime, flexiplace, job share and standard fixed hour operating schedules. The results presented in Table 3 show that flexible work schedules were seldom significant mediators of work/life balance. Indeed, the Tukey contrast results demonstrate that across the different work schedules rarely were there significantly different mean scores for the three dimensions of work/life balance, at the  $p < .05$  level. In fact, of the 12 possible paired tests only three were significant. These results show that respondents of flexitime work schedules, and respondents engaged in job share work arrangements, reported significantly lower levels of WIPL (negative interference) than employee on fixed hours. Employees who worked under flexitime work schedules reported a higher mean score for WPLE (enhancement) than the group who worked on fixed hour schedules. Although these results may be attributed to the imbalance in the group numbers of the individual work schedules, particularly the job share numbers ( $n=62$ ), the significant differences in mean scores indicate flexitime schedules were generally associated

with significantly higher levels for two of the work/life balance dimensions, compared to the fixed hour work schedules. Overall, the results presented in Table 3 provide partial support for Hypothesis 4, while Hypotheses 5 and 6 were unsupported.

## **DISCUSSION**

The main focus of this paper was to explore the relationships between perceived usability of flexible work arrangements and work/life balance with a sample of office based employees. The hypotheses presented in this paper predicted that perceived usability would be related to three dimensions of work/life balance: WIPL, PLIW and WPLE. Indeed, the expectation that the perceived availability or usability of organisational flexible work policies would be linked to WIPL, PLIW, and WPLE was substantiated by the statistical results. The results demonstrate the importance of perceived usability of organisational policies to reducing the negative impact of work conflicting on personal life and personal life interfering with work. In addition, these results provide empirical confirmation that perceived usability was associated to positive enhancement of personal life on work and vice versa. With the exception of a small number of researchers (Eaton & Bailyn 2000; Eaton 2003; Daves 2004), limited attempts have been made to empirically assess the importance of the availability of organisational policies to positive experiences and outcomes for employees. The empirical results presented in this study support the prediction that the perceived usability of flexible work policies is linked to work/life balance. This finding makes a significant contribution to the work/life literature, as it is likely that the perceived usability of organisational policies is related to a host of work and non work attitudes of employees (Eaton 2000). Furthermore, this study extends current work/life literature by confirming the negative interference and positive enhancement when capturing employee experiences of work and personal life balance.

To examine the impact of flexible work schedules on work/life balance means comparisons were performed. The results of these statistical analyses partly supported the assertion that flexitime work schedules would be related to higher levels of work/life balance than fixed hour work schedules. This outcome is consistent with other work/life experiments (McGuire & Liro 1986; Tausig & Fenwick 2001) using samples of office based and administrative employees. Flexiplace and job share work schedules did not appear to significantly enhance employee work/life balance. This is consistent with previous research that has found that working from home and job share work arrangements can often result in the greater conflict balancing work and non work responsibilities (Ronen 1981; Grzywacz & Marks 2000; Saltzstein, Ting and Hill 2001; Felstead, Jewson, Phizacklea & Walters 2002). The predicted flexitime result has particular importance to the organisation in this study, as approximately 44 percent of the administrative employees currently utilise some form of flexitime schedule. Furthermore, the findings demonstrate that the organisations substantial investment in flexitime schedules appears to benefit employees in the integration of work, family and personal life.

### **Limitations**

The findings and conclusions drawn from the research results should be interpreted with the following four caveats. First, the study sample was limited to 710 administrative employees (56 percent) within one university, albeit at three geographically dispersed locations. Therefore, future researchers may wish to test the hypotheses in another university environment, or in other industries that utilise flexible work schedules with office based professional employees. The second feature of the study is that a cross sectional research design was employed. Consequently, causality among the variables cannot be determined, but inferences can be made from the associations. A third dimension of the study is related to the selection of the study variables. There may be other factors that are linked to employee work/life balance and as is the case with many organisational behaviour studies, it is almost impossible to test all the antecedents of a

particular construct. The fourth aspect of the study is the self report data collected in the quantitative questionnaire to assess the study variables. The use of self report questionnaires has been a source of debate in the organisational behaviour literature (Spector 1986; Bryman 1998), and has been criticised for resulting in artificially inflated correlations among measures of behavioural constructs. Although this method bias due to the use of a self report approach may have possibly inflated the magnitude of the observed correlations, this effect would not alter the statistical significance of the observed linkages between the study variables (Carmines & McIver 1981; Kent 2001). Indeed, the constructs included in the present study were assessed by asking employees to report their own attitudes and perceptions, as work/life balance are in the eye of the beholder (Fisher 2001). Therefore, it is possible that the use of self report questionnaires were an appropriate and convenient method for collecting the study data.

## **CONCLUSION**

This study empirically investigated the importance of considering the complex interrelationships between work schedule variables and work/life balance. The principle findings of the study found that perceived usability of flexible work practices was linked to work and personal life balance. Moreover, the evidence from the study was supportive of the observation that enhancing the flexibility provided to employees through flexible work schedules can promote the integration of work, family and personal life. Despite the findings presented in this paper, the research has only begun to elucidate the complex relationships that might transform management practice and research interest. Indeed, the findings presented in this study are possibly suggestive, but an important consideration is that the results are not definitive. Consequently, further studies are needed to consolidate these findings and to enhance the generalisability of the results to other organisations with office based employees utilising flexible work arrangements.

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