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Person-Job Fit in the Changing Work Environment : Models for Office Workers and Teleworkers

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**Person-Job Fit in the Changing Work Environment: Models for
Office Workers and Teleworkers**

Sharon C . Elsley

**A Report Submitted as a Partial Requirement for the
Degree of Bachelor of Arts with Honours in Psychology at
Edith Cowan University**

Date of Submission: 30th June, 1998.

**I declare that this written assignment is my own work and does not include:
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Signature.....

Person-Job Fit in the Changing Work Environment: Models for Office Workers and Teleworkers

This thesis empirically examined the theoretical domain of Person-Job Fit proposed by Edwards (1991). Two models were tested with data collected from a sample of 101 Office Workers and 101 Teleworkers categorised as professional, managerial, clerical, technical and sales. The adequacy of the two models was tested using Partial Least Squares (PLS) analysis. The Person-Job Fit model found that measures of Abilities, Desires, Supplies and Demands were equally predictive of Personal and Organisational Outcomes for both groups. Commensurate measures were employed for Desires and Supplies. The Extended Person-Job Fit model included the meaning of home (Groves, 1996b), which was hypothesised to be salient to Teleworkers because they work from home. The Person-Job Fit model was an adequate to good fit of the data for both Office Workers and Teleworkers, whereas the Extended Person-Job Fit model was a slightly better fit for Teleworkers. These findings supported the hypotheses for this study. Furthermore, the R^2 for both models were statistically significant for Personal and Organisational Outcomes and improved for both Office Workers and Teleworkers in the Extended Person-Job Fit model. For both models differences emerged between Office Workers and Teleworkers in regard to Abilities, Desires, Supplies and Demands as predictors of Personal and Organisational Outcomes. In particular, the outcomes for Office Workers were predicted by contextual attributes whereas psychological aspects were predictive of Teleworker outcomes. In the extended model, the addition of the Home was an important predictor with each group. The interesting difference between the groups was evidenced in the reversed effect between the Home and Organisational Outcomes for Teleworkers. This finding suggests that benefits accrue to the organisation when the Teleworkers' home environment is compromised. It is concluded that the Edwards' (1991) Person-Job Fit domain does provide cohesive parameters for investigation of Person-Job Fit. Moreover, the expansion of the measured environment to include the Home (Groves, 1996b) highlighted the need to consider the impact of the changing work environment. These findings have implications for recruitment, staff retention and the successful accommodation of structural change within organisations.

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Introduction

Person-job fit research has been the focus of organisational behaviour and organisational psychology since Lewin's (1951) Field Theory postulated the need for successful transactions between individuals and their physical settings. Person-job fit implies that congruence between the person and the job, act as joint predictors of personal and organisational outcomes (Edwards, 1991; Pervin, 1978).

According to Edwards (1991) and Hesketh and Myers (1997), person-job fit research has been haphazard and methodologically inept. Most studies have concentrated on measures of isolated constructs such as motivation (Hackman & Oldham, 1980), job satisfaction (Locke, 1976), work aspect preference (Pryor, 1983), vocational choice (Holland, 1985), and job stress (French, Caplan & Harrison, 1982). Measures of person-job fit have predominantly used variables to measure person desires and job supplies and, much less frequently, person abilities and job demands in predicting person and organisational outcomes. Furthermore, statistical analysis has not expressed the person and the job in terms of the same content dimensions (Edwards, 1991; Hesketh & Myers, 1997). Edwards called for the use of commensurate measures or conceptually relevant measures. That is, parallel measures such as a person's "desire" to work from home, with the organisation's "ability" to provide the necessary technology and agreement to meet the employee's desires. Therefore, person-job fit is defined as "... commensurate person and job constructs as predictors of individual and organisational outcomes..." (Edwards, 1991, p. 289).

Edwards (1991) suggested that a solution to the above deficits in person-job fit research would be the development of a unified framework for person-job fit research using commensurate measurement (Edwards, 1991; Hesketh & Myers, 1997). Edwards suggested that the domain of person-job fit research should include measures of the person's desires (e.g., needs, goals, values, interests and preferences), person's abilities (e.g., aptitudes, experience and education), job supplies (e.g., occupational characteristics, organisational attributes and job attributes), and job demands (e.g., workload, performance requirements, instrumental activities). These variables are

predictive of personal outcomes (e.g., job satisfaction, psychological and physical health, coping and adaptation) and organisational outcomes (e.g., motivation, performance, absenteeism, turnover and vocational choice) (see Figure 1). Edwards also suggested that statistical analyses needed to measure and identify the separate contribution of the person and the job to outcomes, and such studies should try to include samples from several occupations so that results can be generalised.

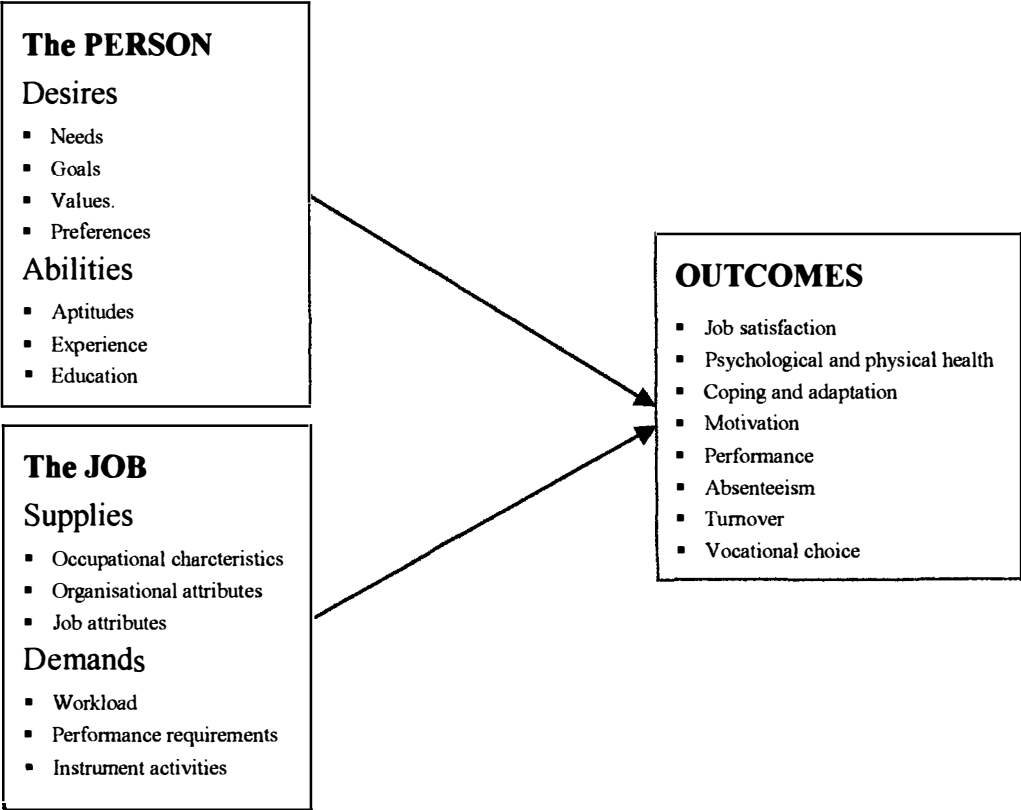


Figure 1. The domain of Person-Job Fit (Edwards, 1991).

Traditionally, person-job fit theory has been applied in the context of employment within the physical environment of the organisation. However, over the past twenty years or more, organisations have responded to advances in communication technology, with gradual changes to work design and the work environment (Cordery, 1997; Groves, 1996a; Huws, 1988; Oldham, 1996; Wood, 1996). In response to changes in technology, research has documented modifications to previously accepted work practices. For

example, downsizing of staff and office-space requirements, restructuring of management and development of employee initiatives, more flexible work hours, and the need for employees to be more mobile within the organisation (Bowen, Ledford & Nathan, 1991; Bridges, 1994; Howard, 1995; Kristof, 1996; Salaff & Dimitrova, 1996).

The move toward employee mobility has created less structured work hours at the office for some workers and the introduction of the home office for selected employees. This latter arrangement, which has been termed “telework”, has been established either formally or informally, on a part-time or full-time basis, with or without regular visits to the organisation’s office (Sargent & Groves, 1996; Standen & Omari, 1997). Telework is defined as “organisational work performed outside of the normal organisational confines of space and time, augmented by computer and communication technology” (Olson, 1988, p. 79).

The introduction of telework may benefit the employee or the organisation. Many employees wish to be able to arrange their work hours to accommodate other interests and responsibilities, which would not be possible if confined to the organisation’s office (Groves, 1996a; Standen & Omari, 1997). Working from home has also facilitated employment for skilled individuals who are geographically isolated from the workplace, those with physical disabilities, which would have once precluded them from employment (Christensen, 1992; Gordon, 1988; Kristof, 1996) and employees who are rehabilitating (Standen & Omari, 1997). Often organisations have adopted telework practice to retain skilled employees who would otherwise leave. Commercial decisions such as cost benefits in reducing office-space and escalating rents have also prompted the introduction of telework (Standen & Omari, 1997).

With the advent of telework as an accepted, although still emerging work practice, the concept of person-job fit which has been measured within the context of the traditional organisational space may not be adequate to assess person-job fit for teleworkers. Figure 1 shows the existing person-job domain, suggested by Edwards (1991), which may need to be extended to include the residential environment for teleworkers (Sargent & Groves, 1996). This assumption is based on previous research, which has shown that work and

the home environment influence each other (Ahrentzen, 1990, 1992; Campion, 1996; Frone, Russell & Cooper, 1992; Groves, 1996a; Jones, 1996).

Work design theory and person-job fit theory have not kept pace with new work practices and work environments. Many jobs demand increased intellectual involvement, decision-making and problem-solving skills and teamwork (Cordery, 1997; Stevens & Campion, 1994). However, many businesses are also turning to decentralised work environments in which some employees need to work autonomously, with much less interaction within the organisation (Groves, 1996a; Howard, 1995; Bowen, Ledford & Nathan, 1991; Bridges, 1994; Standen & Omari, 1997).

In the current study, the definition of telework is confined to organisational work performed at the employee's home either on a full-time or part-time basis, but not including work taken home by an office worker after general office hours. This study tests the proposition that person-job fit theory must be extended to incorporate telework practice. The study also examines whether the impact of the home environment of teleworkers needs to be considered in person-job fit theory.

The aims of this thesis are:

1. To review the literature for person-job fit, telework and the meaning of home.
2. To test the person-job fit model with office-workers and teleworkers.
3. To extend the person-job fit model to include "Home" as an additional predictor of personal and organisational outcomes for office-workers and teleworkers.

Person-Job Fit

As argued by Edwards (1991), examination of the fit between employee desires and job supplies has dominated person-job fit research, with less attention being given to abilities and demands as predictors of personal and organisational outcomes.

Some definitions of employee desires are psychological needs (Dawis & Lofquist, 1984; French, Caplan & Harrison, 1982; Porter, 1964), preferences (Pryor, 1983; 1987), values (Chatman, 1989; Locke, 1969, 1976), interests (Campbell & Hansen, 1981) and goals (Lee, Locke & Latham, 1989). Job supplies have been described as occupational characteristics (Holland, 1985), job attributes such as pay (Lawler, 1981), participation in

decision-making (Alutto & Belasco, 1972), role clarity (Lyons, 1971), and characteristics of enriching jobs (Cherrington & England, 1980).

Abilities and demands have been mostly linked to theories of stress (Beehr & Bhagat, 1985; French, Caplan & Harrison, 1982; McGrath, 1976), and to a lesser degree to job performance (Dunnette, 1976; Waldman & Spangler, 1989), turnover and promotion (Dawis & Lofquist, 1984). Abilities have been defined as employee aptitudes (Dawis & Lofquist, 1984; Desmond & Weiss, 1973), or experience (French, Caplan & Harrison, 1982) and education (Drexler & Lindell, 1981; French, Caplan & Harrison, 1982). Job demands have been measured in terms of qualitative and quantitative workload (Caplan & Jones, 1975; Caplan, Cobb, French, Harrison & Pinneau, 1975; French & Caplan, 1972), requirements for acceptable job performance (Rosman & Burke, 1980) and activities that produce valued outcomes (Harrison, 1985, McGrath, 1976).

The most frequently measured outcome has been job satisfaction (Cordery, 1997; Dawis & Lofquist, 1984; Katzell, 1964; Lawler, 1981; Locke, 1969, 1976; Porter, 1964). Also measured have been motivation (Hackman & Oldham, 1980; Kulik, Oldham & Hackman, 1987; Lee, Locke & Latham, 1989; Locke, Shaw, Saari & Latham, 1981), job stress (French, Caplan & Harrison, 1982; McGrath, 1976), and vocational choice (Holland, 1985).

The following review was limited to published person-job fit research involving samples of working populations using a commensurate measure fit index for either desires, supplies, abilities or demands as predictors of personal or organisational outcomes. Over 100 studies to date have met these criteria. The review is divided into two sections: "Personal Desires and Job Supplies" and "Personal Abilities and Job Demands".

Fit between Personal Desires and Job Supplies

Most studies in the 1960's and some in the 1970's described job attributes in terms of Maslow's hierarchy of needs (Katzell, 1964; Porter, 1962). These studies typically used Porter Needs Satisfaction Questionnaire (PNSQ), with additional items examining pay and knowledge, job type, job level and other contextual variables (Cummings & ElSalmi,

1968; Haire, Ghiselli, & Porter, 1966, Porter, 1964; Porter & Lawler, 1964; Wahba & Bidwell, 1976). However, the contexts were not measured in terms of personal or organisational outcomes.

During the 1970's studies began to correlate predictor variables with outcomes such as job satisfaction and work performance. These studies used algebraic difference (desires minus supplies) to calculate a fit index. Orpen (1974) reported a positive relationship between the total PNSQ and job satisfaction, whilst Imparato (1972) found negative correlations between the total PNSQ and variables (e.g., promotion satisfaction, pay) in the Job Descriptive Index (JDI; Smith, Kendall, & Hulin, 1969). The major finding from the latter study was that JDI scores were higher for respondents who had high scores for both current and desired responses. This meant that fit was not only reliant on congruence between current and desired responses, but also on the absolute level of both measures (Edwards, 1991).

Wanous and Lawler (1972) found that job satisfaction was negatively related to need deficiencies in 23 job attributes. However, on examination of the "current" measures, a stronger relationship was found in comparison to the difference between "desired" and "current" when "current" did not match or exceed the "desired" score. Wall and Payne (1973) concluded that when the "current" measure is controlled for, the "desired" measures were no longer significant.

Cherrington and England (1980) and Tziner (1987) found that job satisfaction (Locke, 1984) was positively correlated with actual job enrichment and negatively related to desired job enrichment, whereas performance was positively related to actual job enrichment but unrelated to desired job enrichment.

Relationships with the PNSQ other than job satisfaction have also been reported. Hrebiniak and Roteman (1973) found positive correlations between the PNSQ and deficiencies (desires exceeded supplies) in security, social interaction, self-esteem, autonomy, and self-actualisation needs. Sheridan and Slocum (1975) reported insignificant results for a longitudinal study, which examined the relationship between work performance and total needs deficiency (desires exceeded supplies). Similarly,

Lawler and Hall (1970) found no relationship between self-rated effort and performance, and autonomy and self-actualisation needs deficiencies. Beer (1966) also reported no relationship between motivation and need deficiencies in a study of leadership behaviour. However, these latter results are partly due to low reliabilities (highest 0.43) for the motivation measures. Dyer and Theriault (1976) found a negative relationship between pay satisfaction and need deficiency, however, this result seems obvious as pay supplies were not as high as pay desires.

More recent research by Betz (1984) found a positive relationship between a measure of life satisfaction and security/safety, social relationships, autonomy, and esteem. Lachman and Aranya (1986) found when desires exceeded supplies employee turnover intentions were positive, however, negative relationships were found with job satisfaction and organisational and professional commitment.

Two studies of neuroticism highlighted differences between unskilled workers and management personnel. For example, Payne (1970) found in his study of unskilled workers, that neuroticism was negatively related to social need satisfaction (supplies exceed desires), and job adjustment was positively related to need satisfaction. However, for the same study, Payne (1970), using a sample of management personnel, found that job satisfaction was positively related to total need satisfaction, self-esteem, autonomy and self-actualisation need satisfaction, but negatively related to satisfaction with social relationships and security.

Dolliver, Irwin and Bigley (1972), Schletzer (1966), Cairo (1982) and Zytowski (1976) found no relationship between occupationally relevant Strong Vocational Interest Blank (SVIB) scores and job satisfaction, or mental health (Klein & Weiner, 1977). However, Zytowski (1976) did find the scales relevant to continuity of employment across 12-19 years.

Several studies examined measured the relationship between desires and outcomes within a single occupation or a single type of job attribute. Using the Self Directed Search (SDS) scale, a positive correlation was found for vocational satisfaction and professional commitment (Aranya, Barak, & Amernik, 1981). Similar findings were

reported for sales managers (Doty & Betz, 1979). However, these findings were found in single occupation studies so it is not possible to generalise the findings. These studies support recommendations by Edwards (1991) and Hesketh and Myers (1996) that person-job fit studies should include several occupations.

A number of studies measured outcomes by dividing employees into groups of those who desired a particular job attribute and those who did not. Three studies divided employees into subgroups based on their perceived role clarity (Ivancevich & Donnelly, 1974; Lefkowitz, Somers & Weinberg, 1984; Lyons, 1971; Miles and Petty, 1975). For each of these studies employees who considered role clarity important reported significant positive correlations between actual role clarity, job interest and job satisfaction, and stronger negative correlations between actual role clarity and tension, physical symptoms, and intended and actual turnover, than those employees who considered role clarity unimportant. Another study by Wanous (1974) found that employees who desired job variety, job autonomy, task identity and feedback of results reported strong positive relationships with job satisfaction. Furthermore, Cherrington and England (1980) reported stronger positive relationships between job enrichment and job satisfaction and performance for those employees who desired these attributes. These results appear to confirm that particular job attributes need to be valued by the individual for them to have a positive effect on job satisfaction or other outcome variables.

Although several studies discussed so far employed multiple fit indices (e.g., Beer, 1966; Cherrington & England, 1980; Sheridan & Slocum, 1975; Wanous & Lawler, 1972), few studies have statistically compared these indices as competing predictors of outcomes. One exception is work by Wanous and Lawler (1972) who found that “current” measures were better predictors than the algebraic difference between “current” and “desired”.

Some studies examining multiple indices in relation to outcomes only reported whether each index was significant. O’Brien and Dowling (1980) reported that the interaction and absolute difference between desires and supplies were both significantly related to job satisfaction. Edwards (1991) conducted post-hoc analyses on the above

study and reported that, when entered as simultaneous predictors of job satisfaction, desires and supplies showed significant but opposite correlations, concluding that the original results were inconclusive. Rice, McFarlin and Bennett (1989) also confirmed Edwards' findings.

Research by Bretz and Judge (1994) reported results for the Theory of Work Adjustment and its implications for satisfaction, tenure and career success, measured on 873 graduates from two large industrial relations programmes. Measures analysed were overall job satisfaction, extrinsic career success and person-organisation fit. Other variables measured were: tenure, intention to stay with the organisation, access to a mentor, regular work hours, family obligations, hours spent with family in leisure activity, education level, socioeconomic status, and job level (subordinate or managerial). Further variables reported as control variables were concerned with any significant career interruption and length of interruption, marital status, gender, grade-point average, industry in which the respondent was employed, and the university from which the respondent graduated. Summed difference scores, vector of difference scores, and the vector of their interactions were examined by hierarchical regression (LISREL). Findings suggested that person-organisation fit has an important effect on job satisfaction which is also consistent with the Hesketh and Gardner (1993) finding that job perceptions explained the majority of the variance accounted for by fit. Tenure was explained by individual perceptions, with career success not so strongly supported. Findings also reported that those employees who best fit the organisation or job earn higher salaries, have higher level work status and have a higher level of job satisfaction than those who fit less well than average. These findings suggested that individuals should take into account their perceived fit with an organisation if they wish to experience job satisfaction and extrinsic success.

Furthermore, Blau (1987) stated that fit was positively correlated with higher-job involvement. Meglino, Ravlin and Adkins (1989) posited that fit was positively correlated with greater organisational commitment, whilst O'Reilly, Chatman and Caldwell (1991) reported a positive relationship with lower turnover. Finally, Moos

(1987) reported a positive correlation between perceived fit and improved health and adaptation. Limitations of the studies were the use of difference scores, which precluded assessment of independent effects of the person or the environment (Edwards, 1991). However, LISREL results, although not able to prove causality, did indicate the direction of causality was from fit to career success.

Hesketh and Gardner (1993) tested the predicted relation of satisfaction to person-job fit. Sample size was N=352 over five different banking and engineering organisations. Hierarchical regression was used at the item-level for Holland's (1985) Work Interests Scale, items from Gottfredson's (1981) Occupational Social Space scale and Pryor's (1983) Work Aspects Preference Scale (WAPS) based on Australian work values. A major finding of this study was that employees' subjective perception of their work determines the relationships between job perceptions and satisfaction. Also, that some jobs are more satisfying than others and that some types of people are more satisfied with their work on comparison to others in the same job. Some jobs just have more desirable attributes than other jobs and satisfaction is dependent on the employee's perception of the job. This conclusion supports Hesketh and Gardners' recommendation that employees need to be assisted to clarify their needs, interests and values in relation to work preferences and opportunities.

A study by Rice, Gentile and McFarlin (1991) with 97 respondents, measured facet importance and job satisfaction. That is, the personal importance associated with a given attribute of the job served as a weighting factor, capable of moderating the strength of the relationship between facet descriptions and facet satisfaction. The study measured overall job satisfaction, job attributes (e.g., work hours, pay, face to face contact with clients, supervisor contact, co-worker relationship decision-making, and autonomy), facet satisfaction with each job facet measured on a seven point scale ranging from "delighted" to "terrible". Also measured were facet amount (currently experienced) and facet importance measured directly, quantity of facet wanted, and a measure of the importance of a particular aspect of the job regardless of whether it was available in the current job. Using moderated regression analysis the following results were reported. Firstly, facet

amount and facet satisfaction, are more strongly related in the presence of higher ratings of facet importance. Secondly, the relationship between facet satisfaction and overall job satisfaction is not influenced by facet importance. Caution should be exercised as to the generalizability of this small homogenous sample, together with the possibility that measurement of other job facets could produce the same results (Hesketh & Gardner, 1993).

In summary, the most common outcome variables measured have been job satisfaction and individual performance, with early studies reporting conflicting findings. Later research has begun to address the changing nature of job content and organisational structure and its direct impact on psychological outcomes (Cordery, 1997). For example, research during the 1990's, although relatively sparse, has importantly addressed relationships between job characteristics and mental health (anxiety, depression, perceived competence and empowerment: Karasek & Theorell, 1990; Spreitzer 1995; Warr, 1989).

Spreitzer (1995) concluded that changing organisational structure and the nature of work has led to increased interest in perceived self-efficacy as a motivational factor (empowerment). Improved job content led to higher job satisfaction, whereas job performance improvements were not significantly associated with job perceptions, intrinsic work motivation or job satisfaction, but were associated with pay rises and job losses (Kelly, 1992).

Instead of the traditional top-down management structure, employees are increasingly required to make more decisions and therefore believe in their ability to do so. Therefore, there needs to be a fit between employee perceptions of their ability or competence and organisational expectations (Conger & Kanungo, 1988). Thomas and Velthouse (1990) defined empowerment as meaning, competence, self-determination and impact. Meaning is the fit between an individual's own desires or standards in relation to the value they place on the work. Breif and Nord (1990) and Hackman and Oldham (1980) defined meaning as a fit between the requirements of the job and the individual's beliefs, values and behaviours. Competence is specific self-efficacy or belief in one's

ability to perform the expected job (Bandura, 1989; Gist, 1987). Self-determination encompasses autonomy and choice (Deci, Connell & Ryan, 1989) to make decisions about work methods, pace and effort (Bell & Staw, 1989; Spector, 1986). Impact in the work context is the ability to influence outcomes regarding strategies and administration required in the job (Ashforth, 1989).

Futhermore, research has acknowledged the overlap between the work and home environments and the potential for negative outcomes of stress and conflict (Frone, Russell & Cooper, 1992) even when the job provides the desired motivation (Oldham, 1996).

Fit Between Employee Abilities and Job Demands

As previously mentioned, very few studies have measured personal abilities and job demands in comparison to the volume of research reported on personal desires and job supplies. Edwards (1991, p. 325) commented that this was "... particularly surprising, in light of the centrality of abilities-demand fit to several major theories of job stress ..."

A study by Rosman and Burke (1980) reported a negative relationship between competencies and requirements and job satisfaction. Drexler and Lindell (1981) found that specific training to match a work assignment produced higher satisfaction for army personnel, however, the amount of variance explained was insignificant. French, Caplan and Harrison (1982) used commensurate measures for education and length of service as predictors of job abilities, and job demands in terms of expected education level and length of service. Results recorded as a difference score showed that when abilities exceeded demands, length of service was positively related to job satisfaction and negatively related to boredom. Moreover, excess of education requirements of job demands was positively related to job and workload satisfaction and negatively related to boredom, depression, and somatic complaints. It appears that length of service and over-qualification for the job allow for job satisfaction and low workload, however, these employees may suffer from boredom and a lower level of physical and psychological health.

Edwards and Harrison (1993) reanalysed the data from French, Caplan and Harrison's (1982) study of job demands and worker health, using polynomial regression equations which allowed the results to be interpreted as a three way relationship between the person, the job, and outcomes. Findings showed a more complex relationship than previously reported. That is, the relationships between job complexity and job dissatisfaction and workload dissatisfaction and boredom showed that strain was lower when both the person and the environment were highly congruent, than when they were low.

Summary of Person-Job Fit Research

The preceding review reveals that employee desires and job supplies are related to many individual and organisational outcomes, with job satisfaction being the most commonly measured outcome. No consistent relationship was found between desires and supplies and job performance. Some studies of multiple predictors of outcomes have been reported, however further research is required especially involving multiple constructs across multiple occupations. More research is required for demands-abilities fit considering its association with stress and mental health research.

Studies of the 1990's have begun to consider outcomes that have evolved from changing organisational structure, such as psychological health, autonomy, empowerment, and self-efficacy (Cordery, 1997). That is, management practices have "flattened out" with employees being required to make more decisions and have higher levels of job related knowledge. Moreover, research is addressing the overlap between the work and home domains (Ahrentzen, 1989; Campion, 1996; Frone, Russell & Cooper, 1992; Groves, 1996a). Leaving out non-work factors overlooks issues that may significantly impact on the person-job fit. That is, mental and physical health, are influenced by the home environment as well as working conditions. Also job satisfaction which is specifically associated with the work environment can be affected by non-work stress (Edwards, 1996).

In conclusion, the advent of telework as an increasingly accepted work practice, may require person-job fit research to extend its parameters to include specific constructs

related to the job characteristics of teleworking. This extension may require the study of the interactions between the work and home domains (Groves, 1996a).

Telework

Toffler (1970) forecast the emergence of telework with his prediction that computers would span the distance between the employee's home and the organisation. In 1994, 7.6 million United States workers employed by organisations, considered their homes to be their principal work environment (Sargent & Groves, 1996), with increases of 18% per year expected. In Australia, research indicates that approximately 30% of organisations had either formal or informal telework arrangements by 1996, however, the number of employees involved are comparatively small in terms of international telework practice (Standen & Omari, 1997; Wood, 1996).

Despite the growing acceptance of telework by organisations and the preference by many workers to work at home, little empirical research has addressed the outcomes of telework on either the person or the organisation. The existing research and theoretical enquiry has concentrated on productivity and satisfaction, which parallels the most common outcomes measured in person-job fit research. Empirical studies and descriptive papers have been contradictory in their findings. The current review addressed both conceptual and empirical research from the early 1980's and is divided into 2 sections: 1) the job/organisation and 2) the teleworker, followed by questions regarding who should telework, who benefits, and what measures have been considered in regard to successful teleworking.

The Job/Organisation

Teleworking attracts potential benefits and costs for both organisations and their employees (Wood, 1996).

Organisational Benefits. Organisations may reduce overheads, as office-space requirements are minimised (DeSanctis, 1984). That is, employees working away from the office either part-time or full-time, may share common space and technology such as "workstations" when they attend the office. Additionally, research has shown increased productivity by teleworkers from 15-20 percent and sometimes as high as 40%

(Atkinson, 1985; DuBrin, 1991; Galegher & Kraut, 1990; Gordon, 1988; Hartman, Stoner, & Arora, 1991; Katz, 1987; Kraut, 1987; Olson, 1988; Olson, 1989), which provides greater opportunity for higher profits (Wood, 1996). An Australian Public Service agency reported a productivity increase of 70% over a three-month period (Standen & Omari, 1997). However, Christensen (1992) posited that productivity increases are not a direct effect of teleworking practice, as teleworkers may work longer hours than office-based colleagues. Nevertheless, the increased productivity allayed earlier concerns by managers/supervisors that employees would work less if not under direct supervision of the organisation (Atkinson, 1985).

A study by Ramsower (1985), hypothesised that teleworking would have a negative effect on performance, turnover and absenteeism, however the findings contradicted this view and reported that teleworkers perceived that working from home positively affected their performance and productivity. Furthermore, this study showed that the only demographic difference between full-time teleworkers, part-time teleworkers and a control group was that the full-time teleworkers had more children.

Organisational Costs. Potential costs to the organisation may arise in monitoring work output, and in scheduling “at home” and “at work” time for part-time teleworkers (Schiff, 1983). Other potential costs are associated with union negotiation of working conditions, data security, confidentiality and company loyalty (Renfro, 1982) and white collar crime (Wood, 1996). Katz (1987) identified problems with teleworking such as absence of direct supervision, less security and reduced face-to-face communication. Data security can be controlled by the use of restricted access from remote locations, and by coding and classifying of information (Wood, 1996). Finally consideration is needed of the cost of back-up support services for computer software and computer repairs at employees' homes (Eder, 1983). However, Raghuram, Wiesenfeld & Garud, (1996) suggested that availability of equipment was secondary in importance to successful negotiations by the employee and the organisation concerning telework practice.

Some research of benefits and costs are framed as job outcomes, which may affect the organisation, the employee, or both groups.

Organisational and Personal Outcomes. In terms of job outcomes, Ramsower (1985) found that part-time teleworkers experienced more independence in their work and full-time teleworkers reported a simplification of their work practices (i.e., less tasks). Part-time teleworkers reported greater satisfaction for working alone and lower satisfaction concerning their ability to direct the action of others. Full-time teleworkers reported lower satisfaction with job security and the amount of variety in their jobs. Olson (1989) compared teleworkers with office-based controls in three pilot studies and found that levels of satisfaction with pay and satisfaction with supervision increased for the office-based employees, which could not be attributed to teleworking.

A correlational study of 97 teleworkers by Hartman et al. (1991) found that a performance evaluation system satisfactory to the teleworker was conducive to productivity and satisfaction. Standen and Omari (1997) found in a survey of 500 Australian organisations, that the successful management of teleworkers rested with managing by objectives and evaluating by results. Furthermore, providing clear communication and training, positive and frequent feedback to employees, affording teleworkers at least the same autonomy as office-based workers are essential elements in teleworker practice, to alleviate potential stress and hostility.

Trent, Smith and Wood (1994) in a pilot study (N=38) comprising 15 teleworkers, 9 home-workers and 14 office-based workers found that both teleworkers and office-based employees perceived stronger support from management than the home-workers and teleworkers experienced less feelings of isolation or of being forgotten. The definition of home-workers was not clear but appeared to be those who worked for the organisation but did not visit the office at all. No statistically significant difference relating to stress was found between the groups, which was most likely due to the small sample, although the teleworkers showed a preference for their new working conditions. Flexible work hours have been reported to increase productivity and job satisfaction, however, as a guard against overwork, resulting in possible health problems, Standen and Omari (1997) found that agreement regarding work hours should be reached between the organisation and the employee.

Norman, Collins, Conner, Martin and Rance (1995) applied the attributional and stress research to hypothesise that teleworkers who made optimistic attributions and cognitions and used problem-solving strategies would have better work-related outcomes. A sample of 192 teleworkers, across five occupations, were tested with items from COPE (coping) measures, the 12 item General Health Questionnaire (GHQ: Goldberg, 1978) and questions on job satisfaction, using multiple regression analysis. In relation to outcomes, the results showed that teleworkers reported poorer psychological well-being, and they perceived work-related stressors to have important consequences when their coping strategies were emotion-focused. Further, for those teleworkers who reported positive well-being, results showed they did not consider work-related stressors to have important consequences and were more likely to use problem-focused coping strategies. These findings have implications for appropriate training prior to implementation of telework practice to encourage clear communication of problems as they arise, and to ensure that the teleworker is able to have a problem-solving approach to facilitate desirable outcomes. Methodologically, this study would have been improved by including a control group of office-based employees of similar occupations.

The research by Ramsover (1985) distinguished between full-time and part-time teleworkers. Communication with managers and supervisors was more satisfying for part-time teleworkers, they enjoyed more independence, liked working alone, but experienced lower satisfaction in not having any control over other workers. Full-time teleworkers experienced lower satisfaction with increased isolation interpreted as being less satisfied with the time spent working alone. Trent, Smith and Wood (1994) found that regular visits to the office were necessary to prevent feelings of isolation. Also flexible working hours increased productivity and job satisfaction.

Hartman et al. (1991) found that productivity and satisfaction were positively correlated with a mutually agreed performance evaluation system. Standen and Omari (1997) argued that management of teleworkers needs to be by objectives and evaluation of results. Teleworkers also expressed that clear communication and training, positive and frequent feedback of progress and results by supervisors and managers, and equal

autonomy levels with office workers were all necessary to prevent potential stress and hostility. Norman et al. (1995) reported that coping strategies determined psychological health. That is, those teleworkers who used emotion-focused coping strategies experienced poorer psychological health than teleworkers who used problem-focused coping strategies.

The research literature has revealed conflicting attitudes by managers, supervisors and employees regarding the value of telework to the employee and the organisation.

Management attitudes: Managers do not consider that telecommuting increased productivity or morale (Olson, 1988). However, managers considered telework practice was not a threat to the career development of those who chose to telework. In this study, turnover rates, absenteeism, lack of opportunity for career development, lack of co-worker relationships or satisfactory supervision were not considered (Duxbury, Higgins and Irving, 1987). Managers have also reported concerns that telework would result in decreased productivity (Wood, 1996), whilst Kroll (1984) claimed that managers perceived that teleworking improved the quality of work and increased worker satisfaction. Stumbling blocks to the implementation of telework practice have been misconceptions by management of loss of control of employees (Risman & Tomaskovic-Devey, 1989) and, perceived additional supervisory work and monitoring of performance (Olson, 1988). However, Norman et al. (1995) found no difference between task oriented or person oriented management styles and manager's satisfaction with telework practice.

Employee and Supervisor Attitudes: Both employees and supervisors thought that teleworking increased productivity and morale. Employees perceived that teleworking would reduce work-related stress and enhance their working conditions (Wood, 1996). Employees also considered that telework may be a threat to promotional opportunities, but did not consider that productivity would be reduced.

The Teleworker

Research findings regarding the impact of teleworking on the individual employee, are evidenced in the areas of child care (Olson & Primps, 1984; Pratt, 1984), career advancement (Becker, 1986, Hamilton, 1987; Newman, 1989; Zedeck & Mosier, 1990),

social isolation (Ahtrentzen, 1989; Becker, 1986), role conflict (Salomon & Salomon, 1984), household communication (Becker, 1986; Salomon & Salomon, 1984) personality (Sharp, 1988), and workaholism (Hamilton, 1987; Olson & Primps, 1984).

Originally, teleworking was considered a solution to child-care needs, by combining work and caring for dependants (Hartman et al. 1991). Pratt (1984) suggested that homemakers could perform two jobs at the same time: work and care for dependants. However, Olson and Primps (1984) found that women reported increased stress because of the overlap of work and family responsibilities. Later studies have shown that teleworking does not eliminate the need for child or other dependant care (Christensen, 1992; Groves, 1996a; Hartman, et al. 1991; Standen & Omari, 1996; Yap and Tng, 1990).

As with the job/organisation, employees experience both benefits and costs with teleworking.

Employee Benefits: Employees may benefit from more flexibility between their work and home life, less stress, less commuting time, more autonomy within their work, and a more casual work environment. Increased job satisfaction (Hartman et al. 1991) was noted as of benefit to both the employee and the organisation. Furthermore, teleworkers reported increased loyalty to their organisation, possibly due to the perception of trust, which is also likely to benefit both parties (Atkinson, 1985). Ramsover (1985) found that communication improved for the part-time teleworkers and decreased for the full-time teleworkers, in contrast to the control group. Although full-time teleworkers were less satisfied with time away from the work group, part-time teleworkers expressed that the distance created between them and their work promoted more satisfying communication.

Employee Costs: Conversely, employees may experience isolation from colleagues (Ahrentzen, 1989; Becker, 1986), less social interaction and emotional support from co-workers, inability to participate in decision-making and dissatisfaction with the level of supervision available and loss of separation between work and leisure space (Wood, 1996). These problems are particularly salient for full-time teleworkers (Mokhtarian, 1991). The opportunity to make social contacts at work can contribute significantly to job satisfaction (Becker, 1986) and telecommuters have reported missing social

interaction (Jackson, 1987; Naisbett, 1982). For this reason, Atkinson (1985), Christensen (1992), and Newman (1989) suggested that teleworkers should work in the office at least one day per week.

Some of the research can be viewed as outcomes for both the employee and the organisation.

Personal and Organisational Outcomes: Yap and Tng (1990) reported that women with computers at home did not favour teleworking, however, if they had a designated work area, married women would be more likely to telework. No relationship was reported between the repetitive nature of the work or supervisory content in the job. However, respondents expressed that they were more likely to work from home if they had supportive supervisors and co-workers, if they perceived that a high proportion of their work could be done away from the office, and if commuting to the office was stressful.

In a study of public and private sector teleworking employees, Hartman et al. (1991) found that technical and emotional support received from the teleworking supervisor was positively related to telework satisfaction. The higher the proportion of work time spent teleworking, the more workers' perceptions of overall at-home productivity were reduced. There were also concerns with family relationships. As family disruptions increased, teleworking productivity and satisfaction decreased. There was a relationship between reported disruptions in the home and preoccupation with work by the teleworker. Concerns were expressed that work and family relationships were overlapping. These findings suggest a compensatory relationship between work and family, where differential investments are made by teleworkers in the home setting (Zedeck & Mosier, 1990).

Work and Home: Salomon and Salomon (1984) noted that work and family lives give rise to different role behaviours, which allow individuals to express different aspects of their personality. It is suggested that by fusing work and home life together, the individual would be denied this opportunity, and that role conflict would result from multiple roles operating simultaneously. This conflict between roles is the inability to

perform the necessary functions of either role, which is detrimental to both work and the home. Ahrentzen (1989) surveyed 104 home-workers, and found that they did not experience role conflict. However, this may have been because the teleworkers had been working from home for an average of four years, and conflicts may have already been resolved. Alternatively, those who encountered unsolvable conflict may have already resigned. Because work and home life give rise to different role behaviours, it has been argued that the commute to and from work may be necessary to separate work and home activities (Salomon & Salomon, 1984). This separation may be necessary to shed and assume roles and role behaviours (Ahrentzen, 1990), and to reduce the transfer of one life sphere into the other (Shamir & Salomon, 1985).

The notion that work and home environments are segmented and do not influence each other is not supported by empirical research (Ahrentzen, 1990). Telework is said to increase the interaction between family members and increase the amount and quality of communication between household members (Becker, 1986). However, it has also been suggested that having work, partner, children and pets in the same environment is likely to cause considerable strain (Salomon & Salomon, 1984). Adding the work function to the physical space of home could result in increased tension that outweighs the expected benefits (Hartman et al. 1991).

Several complaints pertaining to home and family have arisen when employees became teleworkers (Ahrentzen, 1990). These include family and friends not taking their work seriously, and receiving unwanted telephone calls while working. Ahrentzen (1990) also found that over 25% of teleworkers had set times when people could speak to them and in 21.8% of homes with multiple occupants, telecommuters dictated to other household members when they could be home. Restrictions on meal times and television viewing were also reported. In over 70% of the households, teleworking resulted in some change in household responsibilities (Ahrentzen, 1990). Often, the teleworker expects the home to be perfectly clean and tidy at all times in case business contacts visit unexpectedly (Becker, 1986). Becker also found that children were often monitored inappropriately to control noise for the teleworker. This situation is not helped by the

finding that most teleworkers have their work area amongst the family activities because the phone and computer terminal is often located in a family area. Ahrentzen (1990) suggested that to maintain temporal, spatial and social boundaries between the activities of work and those of the family within the residence, the work space should be a separate room.

In summary, examination of the research pertaining to both the organisation/job and the teleworker reveals benefits and costs for both the organisation and the teleworker. Research also indicates particular attributes considered necessary to achieve successful personal and organisational outcomes. Considering these findings, it is important that three questions be addressed: Who should telework?, who benefits? and, how can successful teleworking be achieved?

Who Should Telework?

There have been conflicting findings about who should telework. DeSanctis (1984), reported that the decision to telework should be based on whether or not the employee needed to interact with others to perform their job. It is likely that the skilled worker would be more suited to telework practices, however, research findings show preference for teleworking was more likely amongst employees who experienced lower seniority and lower compensation (DeSanctis, 1984). In support of these findings, professional employees were perceived to have stronger ties to the organisation than less skilled employees, so would be less likely to want to telework (Salomon & Salomon, 1984).

One reason why some office workers may not wish to telework is their perception that by teleworking they may be overlooked for promotion (Becker, 1986; Hamilton, 1987; Newman, 1989; Zedeck & Mosier, 1990). This concern may be due to the employee's concern of "out of sight, out of mind" whilst working away from the office, when promotions are being considered (Hamilton, 1987; Newman, 1989). Conversely, Katz (1987) expressed that part-time teleworkers did not consider themselves to have lower organisational identification, nor did they have different perceptions of the organisation's culture than non-teleworkers.

Who benefits?

Salomon and Salomon (1984) concluded that the costs to the employee could exceed the benefits. That is, most of the benefits appeared to accrue to the organisation including improved productivity and lower overheads (Gordon, 1984; Norman et al. 1995). Also benefits accrue to society in general, with increased fuel emission control, less traffic in the central business district and neighbourhood security with workers at home, revitalization of rural areas (Norman et al. 1995; Salomon & Salomon, 1984). The non-monetary costs incurred by the employee are potential isolation and exploitation by employers (Salomon & Salomon, 1984). These potential costs to employees have led to reservations by unions (Olson & Primps, 1984; Zedeck & Mosier, 1990), however unions have begun to consider the potential benefits to employees regarding teleworking (Christensen, 1992).

An example of union recognition of telework as a viable alternative to office-based work is the Australian Public Service Home Based Work Award (1994) approved by the Australian Industrial Commission. Implementation of telework was dependent on several conditions. These conditions included agreement between the organisation and the employee; applications to be considered individually; telework was not to be a substitute for child-care; a minimum 40% of work time generally was to be spent at the organisation, and the work had to be suitable for performance at home. Furthermore, conditions and benefits of employment were to remain the same; career opportunities were to be the same as office-based employees and; the employee's home has to be accessible for checks on security, occupational health and safety (Standen & Omari, 1997).

Standen and Omari (1997) further reported that feedback by survey of 50% of the Public Service agencies revealed satisfaction with the operation of the award. By 1996, 87 applications for homework had been granted, with both agencies and home-workers expressing enthusiasm for teleworking practice. Furthermore, agencies reported mutual satisfaction by the employee and agency, defined as improvement in employee morale,

less absenteeism, lower turnover, retention of skilled employees and improved job satisfaction.

Successful Teleworking

For successful transition to occur, jobs and supervisory relationships need to be revised so that employees accept greater autonomy and responsibility (Olson, 1988). Olson (1989) also stated that increased autonomy may enhance overall job satisfaction and Shamir and Salomon (1985) reported that increased autonomy could enhance the quality of working life. Furthermore, Kandola (1995) identified mutual responsiveness by the organisation and the employee as conducive to successful teleworking practice. That is, trust by supervisors and managers in employees (Mayer, Davis & Schoorman, 1995), employee enthusiasm, voluntary participation, upper management support and management enthusiasm, were all needed to succeed (Sargent & Groves, 1996)

Autonomy provides freedom and independence by employees to schedule work to suit the employees lifestyle needs. DuBrin (1991) suggested that the Hackman and Oldham (1976) job characteristics model provided an explanation for why teleworking could enhance job satisfaction. That is, any job could be defined in five constructs of skill variety, task identity, task significance, autonomy and feedback, and influenced three critical psychological states of the employee. One of the critical states, “experienced responsibility for outcomes” is influence by autonomy in the job. DuBrin (1991) said that high levels of critical psychological states result in favourable outcomes such as high internal motivation, high productivity, and high job satisfaction (Hackman & Oldham, 1976). For 28 studies, a mean correlation of .46 was reported between autonomy and job satisfaction (Loher, Noe, Moeller, & Fitzgerald, 1985). This finding is supported by earlier research by Herzberg (1974) that showed a relationship between an enriched satisfying job and the availability of flexible, autonomous scheduling of work by the employee. Furthermore, results of a study by DuBrin (1991) of 34 teleworkers and 34 office workers involved in structured, repetitive tasks, found no significant differences for the overall model. However, in item-level analyses, teleworkers reported higher satisfaction for working conditions, coworker relationships, and scheduling own

work hours. Also, productivity was higher by 29.9% for teleworkers. These levels of satisfaction enhance job satisfaction (Shamir & Salomon, 1985; Zedek & Mosier, 1990). Therefore, telework, can be said to increase satisfaction with specific job facets rather than overall satisfaction (DuBrin, 1991). A limitation to this study was that teleworkers were more highly educated than the office-based employees, although this should not have been a major problem as both groups were involved in structured, repetitive work. A conclusion to be drawn may be that a higher education provided the teleworkers with the ability to be more productive, resourceful and have better work habits.

In summary, the vast majority of teleworking research has historically investigated job satisfaction, productivity and benefits to the organisation rather than the benefits or cost to the employee. That is, research suggests that at an organisational level, telework is related to improved productivity, job satisfaction (less for full-time teleworkers than part-time teleworkers) and reduced managerial control. In contrast, no relationships have been demonstrated between teleworkers and changes in organisational culture or managerial style

Moreover, research findings show that telework does not occur in isolation of the home environment (Ahrentzen, 1990; Kraut, 1989). Therefore, the teleworking research to date highlights the need for a more comprehensive analysis linking the individual and organisational and home context. It is therefore argued that it is necessary to inbed the notion of home and teleworkers' personal context into organisational research in order to provide a more comprehensive understanding of the reciprocal influences between individuals and their organisational and person contexts. That is, a measure of the teleworkers' mental representation of home may need to be included in a person-job fit measure for teleworkers in regard to personal and organisational outcomes.

The Meaning of Home

Research indicates that the home and work environments influence each other (Ahrentzen, 1990; Jones, 1996; Kraut, 1989) even though traditionally they have been considered two distinctly delineated domains (Eckenrode & Gore, 1990; Zedeck, 1992). Therefore, for teleworkers, whose principal place of employment is the home,

consideration of the meaning of home should be particularly salient with regard to personal and organisational outcomes. In order to theoretically and empirically extend Person-Job Fit to include teleworking, research must identify how the meaning of home impacts on the work environment. It is plausible to suggest that the relocation of work into the home will impact on the teleworkers' adaptive processes (Groves, 1996a).

Concept of Home

Research has provided many interdisciplinary explanations of meanings of home (Smith, 1994). However, it is the psychological interpretation of the meaning of home and perceptions of the physical context which are central to home and work (Groves, 1996b; Giuliani, 1991; Hayward, 1975; Saegert, 1985; Tognoli, 1987). Within this mental representation, the physical features of a home are secondary to the social, cognitive, cultural and behavioural aspects (Arias, 1993; Deprés, 1991; Groves, 1996b; Lawrence, 1987; Siegel & Cohen, 1991). These aspects emphasise a home as a secure place from which to depart and return. Also important are the comforts the resident desires or requires from the home (Groves, 1996b; Giuliani, Bonnes, Amoni & Bernard, 1988; Smith, 1994). However, working from home may alter the mental representation of home to accommodate different home practices.

The current literature review addressed research from 1974 to 1998. Most research has identified the mental representation of the meaning of home from the perspectives of attachment (Giuliani, 1991), benefits (Fogel, 1992), adaptation theory (Tognoli, 1987), disruptions to attachment (Brown & Perkins, 1992), essential qualities of home (Smith, 1994), gender differences (Ahrentzen, 1992), role conflict at home (Ahrentzen, 1990), and self-identity (Cooper, 1974). Further research identified home environments and work (Ahrentzen, 1989; Deprés, 1991), work/family linkage (Lambert, 1990), life-cycle preferences and changes (Doyle, 1992; McAuley & Nutty, 1982), residential satisfaction (Edelstein, 1986), the elderly (Rubinstein, 1990), homelessness (Dovey, 1985; Hill, 1991), and interpersonal relationships (Werner, 1987).

In the years 1977 and 1986, six studies defined the meaning of home by categorising the most common meanings (Csikszentmihalyi & Rochberg-Halton, 1981; Hayward,

1975; Rakoff, 1977; Sebba & Churchman, 1986; Sixsmith, 1986). The most commonly identified meanings of home over the six studies were: control of emotional and physical safety; expression of taste, interest and character; sense of achievement, control, self-expression and freedom; and, permanence and continuity to accommodate changing life objectives. Furthermore, impressions of the home as a place of opportunity for emotional experiences and social relationships; as a centre for physical activities and psychological needs; privacy and independence; social status, material structure and ownership was derived from the interviews.

According to Deprés (1991) the above expressions of the meaning of home are based on territorial, psychological, socio-psychological, phenomenological and developmental models. Security and control are related to territorial satisfaction. That is, the occupants of the home control the practices and personalise the space to create self-identity. The psychological perspective views the home in terms of the affective needs of the occupants. In other words, the home is a symbol of self (an extension of the psyche), it can provide for practices and experiences (Cooper, 1974), meet the needs for emotional security, health and social recognition (Appleyard, 1979), interpersonal relationships (Werner, 1987), and privacy and choice of practices (Schiavo, 1987). The socio-psychological model refers to the home as a symbol of the individual's social identity. The home is a reflection of the individual's achievement, their character, personality and social status (Appleyard, 1979; Rapoport, 1981).

Finally, the phenomenological and developmental perspectives claim that the home is a temporal experience in which particular life experiences and the day to day living process influence the meaning of home. That is, the past and the future are expressed as permanence and continuity (Dovey, 1985; Korosec-Serfaty, 1985). In support of this view, Horowitz and Tognoli (1982) stated that individuals arrived at a psychological and physical feeling of belonging, which makes everyday experiences a bond of memories (Sixsmith & Sixsmith, 1991). Finally, the meaning of home is a dialectic one in which psychological and physical boundaries separate the internal space and activities from the outside world. This division provides security, feelings of belonging and privacy

(Korosec-Serfaty, 1985). However, it is noted, that too much privacy from the individual's perspective, can lead to feelings of entrapment and isolation (Gottlieb, 1988; Sixsmith & Sixsmith, 1991).

In summary, research indicates a plethora of descriptions for the meaning of home. Tognoli (1987) suggested researchers empirically determine the distinction between the house as a structure and the home as a meaningful construct. Expressions of home were summarised by Tognoli (1987) as centrality, continuity, privacy, self-identity, regulation of social relationships and socio-cultural context. Additional support for these dimensions was provided in a review of the literature by Deprés (1991) and the research conducted by Giuliani (1991), Twigger (1994) and Smith (1994).

Deprés (1991) identified centrality (home as the centre of activities), continuity (home as permanence and continuity), privacy (home as a refuge from the outside world), self identity (home as reflection of ideas and values), social relationships (home as relationships with family and friends), and socio-cultural context (home as indicator of personal status) as indicators of the meaning of home. Furthermore, Deprés's (1991) dimension of home as a place of personal security and control referred to spatial control and social supervision, which are included in Tognoli's (1987) dimensions of self-identity and social relationships.

Additionally, Deprés (1991) discussed the territories of the different occupants and self-identity in relation to the psychological interpretation of the home. That is, the home may be a symbol of one's self, the socio-psychological interpretation of "... social organisation and cultural milieu..." (p. 101) and the phenomenological and developmental interpretations "... of home as permanence and continuity..." (p. 101) and "... home as a refuge." (p. 102). In an investigation of home and non-home environments, Smith (1994) identified "... continuity, privacy, self-expression, social relationships, warmth, and the physical structure ..." (p.45) as essential qualities in the process of homemaking. Smith's description of warmth identified qualities of attachment described by Giuliani (1991) and Twigger (1994) which are included in Tognoli's (1987) dimensions of centrality and privacy. Sadalla and Sheets (1993) also identified the

importance of physical structure in the socio-cultural context. Giuliani (1991) found evidence for the dimensions of continuity (temporal) and self-identity.

Telework and the Meaning of Home

Groves (1996a) stated that an effective transition to teleworking was dependent on the teleworker's perception that new activities pertaining to work in the home did not have a negative impact on the teleworker's meaning of home. Groves (1996a) suggested that people could make rapid changes to home activities and were largely amenable to and able to cope with these changes. However, an important distinction is made between activities in the home (i.e., the idiosyncratic nature of chosen practices within an individual's home) and the underlying psychological meaning of home. Groves (1996b) distinguished activities from meaning, for example "... although the practice of self-identity varies across individuals ... the practice of self-identity is separate from the psychological meaning of self-identity" (p. 88). Groves (1996a) argues that long term success of teleworking is determined by its impact on the meaning of home.

Groves (1996b) developed The Meaning of Home scale based on Tognoli's (1987) six psychological dimensions of centrality, continuity, privacy, self identity, social relationships and the socio-cultural context. However, empirical research by Groves, Sargent and Graf (1994) found that self-identity was two distinct concepts. That is, self-identity in respect to how an individual perceives their residence as being personalised, and self-identity in terms of self-expression (Groves, 1996b). Therefore self-expression was added as a seventh dimension. Research into the impact of teleworking in the home by Groves (1996a) and Sargent and Groves (1996) led to the inclusion of an eighth dimension "Change", which is indicative of the resident's flexibility and willingness to accommodate change within the residence.

This research into the meaning of home has applications for understanding interactions between the home and the work environment. That is, it can be used to understand the individual's mental representation of home and its impact on the work environment, when work and home fuse together. This research can also be used to evaluate an individual's malleability for change (Groves, 1996b). What is important

from a psychological point of view is the discrepancy between the desired meaning of home and the current meaning of home in determining outcomes.

In terms of teleworking, the level of attachment, continuity, identity, cultural context, expression, privacy, social regulation and ability to accommodate change may determine the success of the move from the organisation's office to working from home. The success may be evaluated in terms of personal and organisational outcomes.

Working at home creates additional considerations regarding use of the traditional home space. However, examination of specific activities will not produce an accurate prediction of personal or organisational outcomes, as the same activities may be meaningful for one individual and meaningless for another. This is why the discrepancy between current and ideal meaning which the individual associates with their context is of primary importance (Smith, 1994).

In summary, it is widely acknowledged that the meaning of home is both an interactive and individual perception (Ahrentzen, 1990; Groves, 1996b; Smith, 1994) and the meaning of home may be different for each member of the household. The home as a workplace, either solely or in addition to the central work location has implications for the Person-Job Fit Model because the personal and organisational outcomes for teleworkers are a function of the person's home and their central workplace.

Current Study

The preceding literature reviews reflect the changing face of person-job fit, employment conditions and organisational structure, which include teleworking practice and the inclusion of home as a work environment. Research has shown that person-job fit needs to include abilities, desires, supplies and demands as joint determinants of personal and organisational outcomes. Research has also highlighted the need to consider the relationship between the home and personal and organisational outcomes when employees are working from home.

There has been a 100-year old tradition of travelling to work (Gordon, 1988), which current work practices are challenging. Telework is becoming a considered option for many businesses and their employees, which means that the home or other decentralised

areas are being transformed into workplaces. This being so, it is reasonable to assume that the home may take on new meaning for teleworkers and create new managerial and staffing considerations for the organisation. Therefore, it is appropriate to extend the person-job fit model to include the mental representation of home to incorporate the different psychological work environment experienced by teleworkers (See Figure 2).

The conceptual person-job fit model proposed by Edwards (1991) defined that the constructs of employee abilities and desires, and organisational supplies and demands act as joint determinants of personal and organisational outcomes. It is the congruence between these constructs that has been acknowledged as a definition of satisfactory person-job fit. In the present study, personal outcomes are concepts that theoretically have a direct effect on the person, whilst the organisational outcomes for this study are measures that are conceptually related to the person but also have a direct effect on organisational outcomes.

The current study will generate and evaluate two Person-Job Fit models. Both models will include: Measures of Abilities, Desires, Supplies and Demands as predictors of Personal and Organisational Outcomes for office workers and teleworkers (see Figure 1). The second model will be extended by adding the “meaning of home” (Groves, 1996b) as a predictor of both Personal and Organisational outcomes for teleworkers and office workers (see Figure 2).

Partial Least Squares (PLS) analysis will be used to evaluate the two models.

Hypotheses

The current study hypothesises the following:

1. The tested Person-Job Fit model will explain variation in personal and organisational outcomes for office workers and teleworkers.
2. The addition of “home” to the tested Person-Job Fit model, creating the extended Person-Job Fit model, will improve the explanation of personal and organisational outcomes for teleworkers.

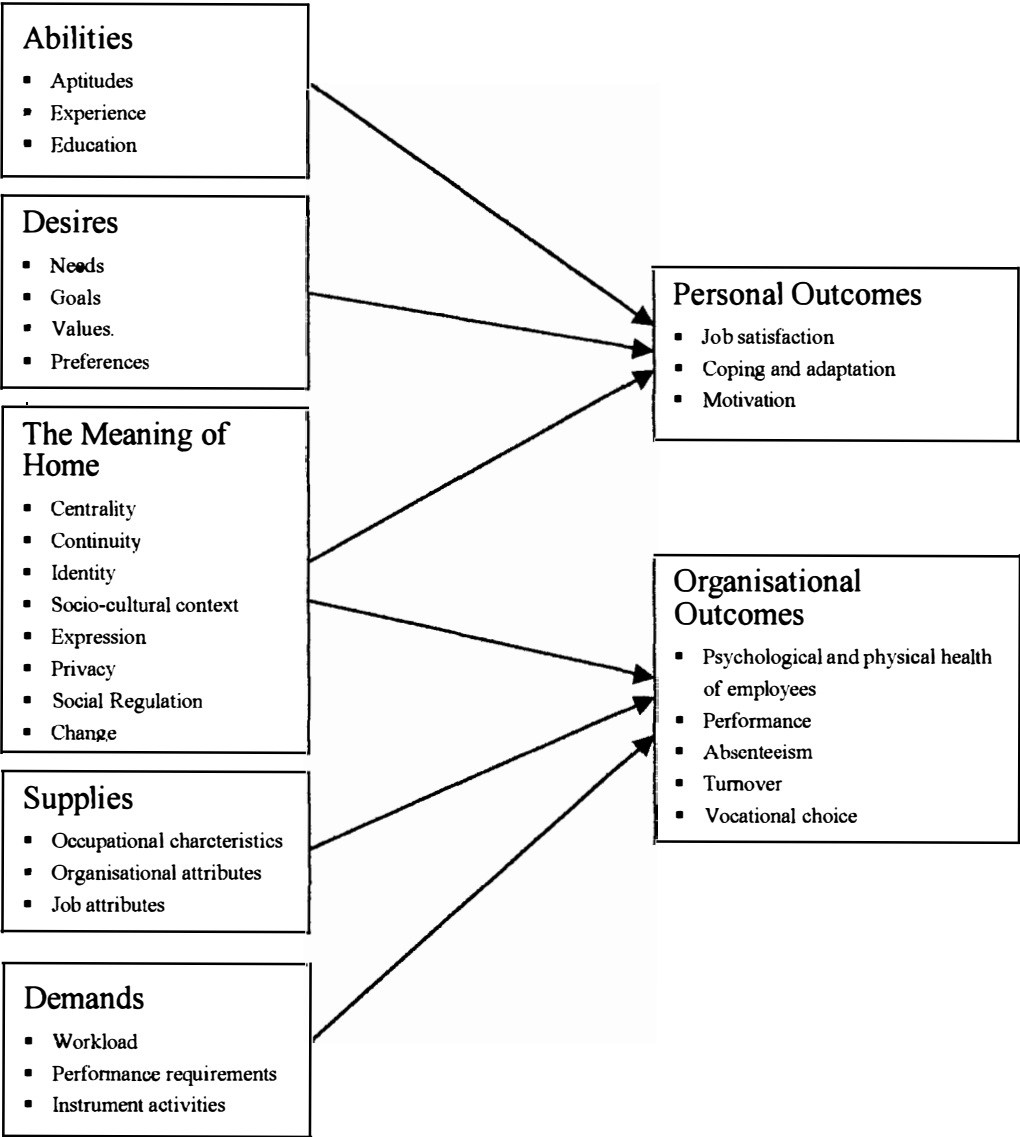


Figure 2. Hypothesised Extension of the Person-Job Fit Domain (Edwards, 1991) to Include the Meaning of Home.

Method

Participants

A total of 480 questionnaires were distributed to people who worked from home for organisations (Teleworkers) and those who worked within their organisation (Office Workers) in Western Australia, Queensland, New South Wales, Victoria and New Zealand. Responses were anonymous and the participants were recruited in person, through networking, by mail, email or facsimile. Organisations were not involved in the study. Questionnaires returned numbered 207, or 43.13% of total distribution. Five questionnaires from Office Workers, were excluded due to the requirement of equal numbers of both groups. The respondent sample of 101 Teleworkers and 101 Office Workers equated to 42.08% of questionnaires distributed. The ages of Teleworkers ranged from 18 - 70 with a mean age of 45.12 years. The ages for Office Workers ranged from 18-60, with a mean age of 38 years. For the Teleworker group, gender distribution was 49 males and 52 females. The Office Worker group comprised 56 males and 45 females. The mean time for residing at their current residence for Office Workers was 1.82 years, whilst for Teleworkers the mean was 2.52 years, with the mean number of occupants being 3.78 for Office Workers and 3.66 for Teleworkers. The Teleworkers were categorised as professional (56); managerial (15); clerical (6); technical (14); and sales (10). Distribution for Office Workers was: professional (54); managerial (23); clerical (5); technical (10); and sales (9), with the professional, clerical and sales categories being very similar in composition to Teleworkers. The mean time spent in the current job was 3.32 years for Office Workers and 3.86 for Teleworkers.

Instrumentation

Table 1 shows the scales that comprised the person-job fit questionnaire for Teleworkers and Office Workers. The table is constructed in the order the predictor variables (manifest) which determine the latent (exogenous) variables were entered into the analyses.

Table 1

Predictors of Latent Variables for Person-Job Fit Model and Extended Person-Job Fit Model for Teleworkers and Office Workers.

Latent Variable	Predictor Variables
Abilities	Year 10; Year 12; TAFE; Undergraduate Degree; Postgraduate Degree; Specific Skills Training
Desires	<u>JDS</u> (Desired) Feedback from agents/supervisors; Satisfaction dealing with others; Experienced meaning of work; Experienced responsibility of work; Knowledge of results; Job security; Pay satisfaction; Satisfaction with supervision. WAPS: (Desired) Independence; Detachment; Co-worker relationships.
Meaning of Home	MOH (Ideal) – MOH (Current): Attachment; Continuity; Identity; Cultural Context; Expression; Privacy; Social Regulation; Change.
Supplies	JDS: (Current) Agent or supervisor feedback; Satisfaction dealing with others; Experienced meaning of work; Experienced responsibility of work; Knowledge of results; Job security; Pay satisfaction; Satisfaction with supervision. WAPS: (Current) Independence; Detachment; Coworker relationships.
Demands	Workload Scale; Regular Work Hours; Overtime.
Person Outcomes	JDS: (Current) Growth satisfaction; General Satisfaction; Internal Work Motivation.
Organisational Outcomes:	GHQ: Psychological and physical health. Absenteeism: Turnover.

Demographics. General questions were asked regarding age, gender, domicile, job title and job description, years at current residence and number of residents. Questions regarding job title and job description, were not required if the respondent considered these details to be identifying (see Appendix A).

Abilities. Educational qualifications and specific courses were measured to predict the match between the latent variable employee abilities and job demands (see Appendix B). Education and specific skills were treated as dummy-coded categorical variables, with the Specific Skills Training category becoming the zero point to which all other weights were referenced (Falk & Miller, 1992).

Desires. Appendix C shows response format for the latent variable “Desires” drawn from subscales of both the Job Diagnostic Scale (JDS; Hackman & Oldham, 1980) and the Work Aspect Preference Scale (WAPS; Pryor, 1983) (see Appendix D). These scales were selected for this study, as the items could be adapted to provide commensurate measures of “Desired” and “Current” responses, in accordance with the recommendation of Edwards (1991). The JDS items were measured on either a 7 point Likert scale or a 5 point Likert scale with varying response formats (see Appendix C). Responses were averaged for each subscale in accordance with the JDS scoring procedure (Hackman & Oldham, 1980). Several studies have used items from the JDS with reliabilities ranging from .43 to .92 (Stone & Gueutal, 1985). Three subscales to measure desired/importance of Independence, Co-worker relationships and Detachment from the WAPS were rated on a 5-point likert scale with responses ranging from "quite unimportant" to extremely important"(see Appendix D). Item responses were averaged for each subscale. Test – retest reliability was reported (Pryor, 1983) between .69 and .78 for the three WAPS subscales, and validity has been established. Edwards reported high correlations for these subscales for measures of outcomes for work and family domains (Edwards, 6/5/97, personal communication).

Meaning of Home. The Meaning of Home (MoH) was measured by a 24-item scale developed by Groves (1996b). This scale has eight subscales (3 items each) and two

response formats, current and desired (see Appendix E). The MoH subscales have demonstrated reliability ranging from .77 to .90, indicating high levels of internal consistency for each subscale. The scale also has a high level of construct and discriminant validity (Groves, 1996b). For each subscale, a difference score (current – ideal) was entered into the analyses. That is, the MoH scale is reverse scored.

Supplies. Supplies were measured with subscale items from the JDS (Hackman & Oldham, 1980) and WAPS (Pryor, 1983) using the “Current” format. The JDS was rated on either a 7-point Likert scale or a 5 point Likert scale with varying response formats (see Appendix C), and an average score was recorded for each subscale. Current measures of the WAPS were measured on a 5-point Likert scale with the responses ranging from “not at all available” to “available a great deal” (see Appendix D), with an average recorded for each subscale. Test–retest reliability was reported between .69 and .78 (Pryor, 1983) for the three WAPS subscales. Validity has been established with high correlations for these subscales, used by Edwards (1996, unpublished) to measure outcomes for work and family domains (Edwards, 7/5/97, personal communication).

Demands. Measurement of the latent variable Demands was achieved using the Quantitative Workload Index and the Combined Quantitative Work Load Index (Caplan, Cobb, French, Harrison & Pinneau, 1975) (see Appendix F). For both scales each item was rated on a 5-point Likert scale, and a combined score was used to measure organisational demands. A high score is interpreted as a low workload. The two scales have demonstrated reliability (Caplan et al. 1975) of .76 and .83, but no demonstrated validity. Demographic information of Regular Work Hours and Overtime worked was also measured to determine Demands (Appendix G).

Personal Outcomes. The latent variable of Personal Outcomes was rated using “Current” subscale measures of the JDS (Hackman & Oldham, 1980; (see Appendix H). Items used were Growth Satisfaction, General Satisfaction and Internal Work Motivation. An average score was recorded for each subscale (Hackman & Oldham, 1980).

Organisational Outcomes. The 28-item version of the General Health Questionnaire (GHQ; Goldberg, 1978) was used to measure psychological and physical health, with a

choice of four responses for each item ranging from 0 to 3, with 0 denoting optimum health (see Appendix I). Split half reliability was reported by Goldberg (1978) at .92 for the GHQ-60, and similar results have been achieved for the modified 28-item scale (Jones, 1996). These results were found for people whose physical or psychological health was stable over a period of six months. Construct validity has also been demonstrated (Goldberg, 1981). Demographic information elicited scores on Absenteeism and Turnover (see Appendix J). Both the GHQ and scores for Absenteeism were reversed so that a high score depicts a better outcome.

Procedure

Questionnaires and permission forms were distributed to prospective participants. The permission form also outlined the research objectives and solicited the participant's responses (see Appendix K). Participants were given two weeks to complete the questionnaire. Participants returned their questionnaire either by mail in a stamped addressed envelope provided; by email or facsimile; or they were collected personally by the researcher; or delivered to the researcher by the respondent. On return, the responses from the questionnaires were coded and prepared for further analysis by transferring responses for each scale to scoring sheets for entry into the PLS programme.

Statistical Analysis

The information on the scoring sheets was entered into an SPSS data matrix for analysis. Descriptive analyses were performed to determine the number of cases and to screen for missing data. Distributions for control variables (age, gender, domicile, job type [i.e., professional, managerial, clerical, technical or sales]) were analysed to identify any significant differences between the two groups. The study was a matched sample design in that the telecommuters and the office-based control group were of equal numbers and of similar occupations. Means, standards deviations and correlations were computed in SPSS (Norušis, 1993) for the manifest variables and transferred to the PLS programme for analysis. Appendices L, M, N and O show correlation matrices for Office Workers and Teleworkers for the Person-Job Fit Model and the Extended Person-Job Fit

Model. Appendix L (1) shows item numbers and corresponding names for manifest variables.

The Latent Variable Path Analysis with Partial Least Squares (LVPLS) estimation computer programme (Lohmoeller, 1989) was used to examine the hypothesised relationships depicted in the theoretical models. First used by Wold (Fornell & Cha, 1994), LVPLS has gained popularity, with past and more recent applications documented in the research areas of organisational psychology (Smith & Bristor, 1994), marketing (Barclay, 1991; Smith & Barclay, 1997; Smith & Bristor, 1994), developmental psychology (Cowan, Cowan, Cohn & Pearson, 1996; Ketterlinus, Bookstein, Sampson & Lamb, 1989; Bookstein, Sampson, Streissguth & Barr, 1996), clinical psychology (Cowan, Cohn, Cowan & Pearson, 1996) and educational psychology (Sellin, 1986).

Partial Least Squares (PLS) structural modelling is a prediction oriented empirical modelling technique that estimates case values of latent variables (Falk & Miller, 1992; Fornell & Cha, 1994). The LVPLS programme uses composite weights and loadings to create latent variables to optimise linear relationships between predictor and predicted components. The best possible prediction of the criterion (latent) variables is created, without regard to the residual variance of the predictor variables. Each manifest variable contributes variance to the latent variable, but there does not need to be common variance between the manifest variables themselves (Falk & Miller, 1992). Paths between theoretical constructs are called standardised path coefficients (i.e., beta weights). Evaluation of the model is based on the correlations and path coefficients between the latent (exogenous) variables, the variance accounted for on latent outcome (endogenous) variables and an overall non-probability fit index.

The advantage of using PLS (rather than programmes such as LISREL) is that the programme requires a smaller sample to be robust, as only part of the model is involved in each step of the estimation of the variance. PLS will run provided the number of participants exceeds the largest number of manifest variables in any block of the model. In the present study, this ratio is approximately 9:1 of participants to manifest variables,

as the largest block contains 11 manifest variables (see Table 1) and the sample for each group is $N = 101$.

The Person-Job Fit Model has 36 variables distributed in six blocks, with each block containing one latent variable: Abilities, Desires, Supplies, Demands, Personal Outcomes and Organisational Outcomes (See Table 1, Figures 3 & 4). The Extended Person-Job Fit Model has 44 variables distributed in seven blocks with the inclusion of the difference score for the Meaning of Home (see Table 1 & Figures 5 & 6).

PLS analysis consists of an outer (measurement) model and an inner (theoretical) model. The outer model measures the manifest variables, which determine the latent (exogenous) variables. Exogenous variables are latent variables (Abilities, Desires, Supplies and Demands) which do not have arrows pointing to them. That is, the model does not undertake to explain them. On the other hand, endogenous variables (Personal Outcomes and Organisational Outcomes) have arrows pointing to them and are explained by the exogenous variables. The inner model consists of the theoretical paths between the exogenous variables (Abilities, Desires, MoH, Supplies, and Demands), and the endogenous variables (Personal Outcomes and Organisational Outcomes).

This study is composed of both inner-directed blocks and outer-directed blocks. The inner-directed block for Abilities (categorical data) represents standard regression weights. The variables were dummy-coded using Specific Skills Training as the zero point to which the other variables are referred. In analysing the dummy-coded categorical variables within an inner-directed block, the weights are Scheffé contrast weights for the group, which provide the optimal spacing of the mean differences for the groups (Falk & Miller, 1992). The outer-directed blocks for Desires, Meaning of Home (difference score), Supplies, Demands, Personal Outcomes and Organisational Outcomes are principal component loadings. The models in the current study are discussed in terms of the inner model (or latent variable path model) and the outer model (or measurement model).

Evaluation of the current models is determined by criteria as specified by Falk and Miller (1992). "Rules of thumb" for evaluating models are more stringent for the outer

model than the inner model. The inner model actually describes a predictive relationship and therefore preserves theoretical ideas. The outer model is required to have at least three manifest variables for each latent construct. Weights are anchored at zero with positive scores being higher. For loadings to substantially contribute they are required to be $\geq .55$ (communality $\geq 30\%$). Variance explained (R^2) is required to be $\geq .10$. Unique contributions by exogenous variables to endogenous variables must be at least 1.5%. Correlations are significant at $\geq .30$.

Ethical Issues

The only ethical issue considered relevant was participant confidentiality. To achieve this, all participants were asked to complete the questionnaire anonymously and return the permission form in a separate envelope if desired.

Results

Partial Least Squares (PLS) analyses were used to examine if:

1. The Person-Job Fit (PJF) model explained variation in personal and organisational outcomes for Office Workers (OW) and Teleworkers (TW).
2. The addition of “home” to Person-Job Fit model, creating the extended Person-Job Fit (xPJF) model, would improve the explanation of personal and organisational outcomes for Teleworkers.

To examine the Person-Job Fit and the Extended Person-Job Fit models' explanations of personal and organisational outcomes for Office Workers and Teleworkers, the PLS program analysed the means, standard deviations and correlations between the observed measures of the latent variables (Appendices L, M, N and O show the correlation matrices). For each group of participants, namely 101 Office Workers and 101 Teleworkers, the required input data were computed using SPSS and then entered into the PLS programme. A summary of the major findings for the Person-Job Fit and Extended Person-Job Fit models is first presented, followed by descriptions of the outer (measurement) models and finally the inner (theoretical) models.

Major Findings

An overall goodness of fit index of how well a model as a whole fits the data is provided by the root mean square of the covariance between the manifest residuals and the latent variable residuals (RMS Cov (E,U), which represents the correlation between the variance of the manifest and latent variables *not* accounted for by the model relationships” (Falk & Miller, 1992, p.83). According to Falk and Miller (1992), a perfect fit is zero and a coefficient above .20 is inadequate. For the Person-Job Fit model, the analyses evidenced an overall RMS Cov (E,U) of .11 for both Office Workers and Teleworkers. With the Extended Person-Job Fit model, there was a slight improvement in the overall RMS Cov (E,U) for Teleworkers from .11 to .10, representing an adequate to good fit of the variance of the data for both models (see Table 2).

Further explanatory power of the model is evidenced by F tests of the squared multiple correlations for the endogenous variables (Harris, 1985, cited in Falk & Miller,

1992, p. 72). In the analysis of the Person-Job Fit and Extended Person-Job Fit models, the R²s for the Personal and Organisational outcomes were all significant. In the Person-Job Fit model, the exogenous variables accounted for 30.2% of the variance in Personal Outcomes for Office Workers, in comparison to 40.5% for Teleworkers (see Table 2). For Organisational Outcomes, the exogenous variables accounted for 27.9% of the variance for Office Workers and 23.4% for Teleworkers (see Table 2). That is, for Teleworkers the exogenous variables accounted for more of the variance in Personal Outcomes, whilst with Office Workers they accounted for more of the variance in Organisational Outcomes.

With the Extended Person-Job Fit model, the exogenous variables accounted for 35.9% of the variance in Personal Outcomes for Office Workers, in comparison to 42.6% for Teleworkers (see Table 2). With Organisational Outcomes, the exogenous variables accounted for 31.1% and 30.4% of the variance (see Table 2). As with the Person-Job Fit model, the exogenous variables in the Extended Person-Job Fit model accounted for more of the variance in Personal Outcomes for Teleworkers, whilst there was no difference between the two groups on Organisational Outcomes.

Table 2

Goodness of Fit Indices and Proportion Variance Accounted for by the Partial Least Squares Analyses of the Person-Job Fit (PJF) and Extended Person-Job Fit (xPJF) Models.

		RMS Cov (E,U)	Personal Outcomes	Organisational Outcomes
PJF	OfficeWorkers	.11	.302*	.279*
	Teleworkers	.11	.405*	.234*
xPJF	OfficeWorkers	.11	.359*	.311*
	TeleWorkers	.10	.426*	.304*

* p < .001 with degrees of freedom (36 & 64) for PJF and (44 & 56) for xPJF.

A comparison of the two models indicates a 6% increase in explained variation in Personal Outcomes for Office Workers and a 3% increase for Teleworkers. For Organisational Outcomes, a reversed pattern is indicated with a 3% increase for Office Workers and a 7% increase for Teleworkers. That is, the increase in explained variance

for Teleworkers was greater for Organisational Outcomes, whilst with Office Workers the increase was greater for Personal Outcomes.

Measurement Model (Outer Model)

The variable measurements are used to define latent variables such that the pathways between latent variables maximised the percentage variance accounted for in the endogenous variables. In the current measurement model, weights are reported for Abilities (see Table 3), factor loadings for the latent exogenous (see Table 4) and endogenous variables (see Table 5). Factor loadings for the latent variables, as displayed in Tables 4 and 5, which are less than .55 (i.e., communality less than 30%), are indicative, according to Falk and Miller (1992), of variables which share little in common with other measures and are inadequate in defining the component variables (as specified within the current models). With the exception of Abilities, loadings $\geq .55$ are reported to explain the latent variables. Loadings $\geq .55$ are underlined in Table 4 and Table 5.

Table 3

Component weights for Abilities

	Level of Education	PJF	xPJF
Officeworkers	Postgraduate	.31	.32
	Year 10	.08	.07
	Specific skills training	.00	.00
	Year 12	-.18	-.17
	TAFE	-1.22	-1.22
	Undergraduate	-1.37	-1.35
Teleworkers	Undergraduate	1.93	1.88
	Year 12	.48	.48
	Year 10	.48	.47
	Postgraduate	.40	.40
	TAFE	.11	.07
	Specific skills training	.00	.00

Note. Weights are optimal Scheffe contrast weights (Falk & Miller, 1992). Positive scores indicate higher levels.

Abilities. Table 3 shows the weights for the latent exogenous variable Abilities, which is a linear composite of the six educational categories indicated by participants. Five

dummy coded variables were used to define the six categories in the analyses. The sixth category, Specific Skills Training, is assigned the zero weight and "... all other weights are referenced to it" (Falk & Miller, 1992, p. 71). Table 3 shows the weights indicate the optimal order for maximising the linear relationship between education level and Personal Outcomes for both the Person-Job Fit model and the Extended Person-Job Fit model. For Office Workers, the reordered categories for both the Person-Job Fit model and the Extended Person-Job Fit model indicate higher levels of Personal Outcomes for employees with postgraduate (.31 & .32) and year 10 education (.08 & .07), and lower Personal Outcomes for TAFE (-1.22 & -1.22) and undergraduate (-1.37 & -1.35) educated employees. In comparison, Teleworkers with an undergraduate degree (1.93 & 1.88) attain higher personal outcomes than Teleworkers with a TAFE education (.11 & .07) or specific skills training (zero).

Desires. Table 4 shows for Office Workers the latent exogenous variable Desires is positively associated with satisfaction with supervision and job security, and negatively associated knowledge of results. For Teleworkers, Desires is positively associated with knowledge of results, pay satisfaction, experienced meaning of work and experienced responsibility for work.

Home. Table 4 shows for Office Workers the latent exogenous variable Home is defined in terms of identity, attachment, their cultural context and providing opportunities for change. Teleworkers also emphasized their cultural context, but also defined the important aspects of home in terms of self-expression and the home affording them privacy.

Supplies. Table 4 shows only one loading $\geq .55$ for each group on the latent exogenous variable Supplies. Office-Workers emphasized the experienced meaning of work, whereas Teleworkers emphasized a high level of independence.

Table 4

Factor Loadings for Latent Exogenous Variables

		Office workers		Teleworkers	
		PJF	xPJF	PJF	xPJF
Desires	Satisfaction with supervision	<u>.61</u>	<u>.63</u>	.50	.51
	Job security	.54	<u>.55</u>	.42	.42
	Pay satisfaction	.47	.48	<u>.66</u>	<u>.66</u>
	Detachment	.11	.10	-.12	-.12
	Satisfaction dealing with others	.10	.09	.13	.13
	Exp. Responsibility for work	.06	.10	<u>.55</u>	<u>.56</u>
	Independence	.05	.07	-.06	-.06
	Co-worker relationships	.04	.03	.02	.02
	Agent/Supervisor feedback	.01	.02	-.01	-.01
	Experienced meaning of work	-.39	-.37	<u>.58</u>	<u>.58</u>
	Knowledge of results	<u>-.62</u>	<u>-.60</u>	<u>.72</u>	<u>.72</u>
Meaning of Home	Identity		<u>.76</u>		.20
	Attachment		<u>.70</u>		.32
	Change		<u>.65</u>		-.32
	Cultural Context		<u>.64</u>		<u>.57</u>
	Continuity		.53		.19
	Social Regulation		.51		.53
	Privacy		.47		<u>.55</u>
	Expression		.41		<u>.56</u>
Supplies	Experienced meaning of work	<u>.61</u>	<u>.58</u>	.29	.37
	Exp. Responsibility for work	.47	.45	.31	.34
	Job security	.45	.43	.01	.15
	Independence	.42	.44	<u>.73</u>	<u>.73</u>
	Knowledge of results	.41	.44	.29	.39
	Pay satisfaction	.37	.34	.16	.28
	Agent/Supervisor feedback	.17	.16	.39	.44
	Satisfaction with supervision	.15	.13	.26	.34
	Co-worker relationships	.07	.06	.05	.04
	Detachment	-.01	-.01	.41	.35
	Satisfaction dealing with others	-.46	-.49	.08	-.01
Demands	Workload	<u>.95</u>	<u>.95</u>	<u>.91</u>	<u>.92</u>
	Overtime	-.44	-.44	-.46	-.48
	Regular work hours	-.36	-.35	<u>-.78</u>	<u>-.75</u>

Note: Loadings should be $\geq .55$ (i.e., communality $\geq .3025$) to be of adequate value in defining the component (latent) variable (Falk & Miller, 1992). Underlined loadings meet specified criteria.

Demands. For the latent exogenous variable Demands, both Office Workers and Teleworkers emphasised workload as being positively associated with Demands. Teleworkers also emphasised the attraction of irregular (flexible) work hours (see Table 4).

Personal Outcomes. For the endogenous latent variable Personal Outcomes, Table 5 shows both Office Workers and Teleworkers emphasise general satisfaction in relation to Personal Outcomes. While Teleworkers place a greater emphasis on internal motivation for work, Office Workers emphasise growth satisfaction and to a lesser degree they emphasise internal work motivation (see Table 5).

Organisational Outcomes. For Office Workers, the latent endogenous variable Organisational Outcomes are defined by psychological and physical health, absenteeism and low turnover of employment. For Teleworkers, a low level of absenteeism is emphasised and in the Extended Person-Job Fit model, psychological and physical health is also emphasised (see Table 5).

In summary, the outer model diagnostics indicate that the overall block construction for the Person-Job Fit Model is weak. That is, although a number of manifest variables are well defined and differences between Office Workers and Teleworkers are evidenced, there are a large number of manifest variables less than .55, that are not accommodated within the person job-fit model (see Table 4 & Table 5). Model trimming involving variable deletion would improve the outer measurement model and the overall goodness of fit indices. This was not undertaken in the present study because a replication sample was not available to assess if any reduced model would be capitalising on chance variations in the data.

Table 5
Factor Loadings for Latent Endogenous Variables

		OfficeWorkers		Teleworkers	
		PJF	xPJF	PJF	xPJF
Personal Outcomes	General satisfaction	<u>.92</u>	<u>.92</u>	<u>.86</u>	<u>.86</u>
	Growth satisfaction	<u>.88</u>	<u>.85</u>	.53	.52
	Internal work motivation	<u>.60</u>	<u>.65</u>	<u>.88</u>	<u>.89</u>
Organisational Outcomes	Psychological & physical health	<u>.68</u>	<u>.71</u>	.48	<u>.64</u>
	Absenteeism	<u>.64</u>	<u>.65</u>	<u>.89</u>	<u>.80</u>
	Turnover	<u>.60</u>	<u>.56</u>	.41	.38

Note: Loadings should be $\geq .55$ (i.e., communality $\geq .3025$) to be of adequate value in defining the component (latent) variable (Falk & Miller, 1992). Underlined loadings meet specified criteria.

Person-Job-Fit Latent Variable Model (Inner Model)

Inner model diagnostics involve assessing the estimates of the hypothesised and unhypothesised relationships between latent variables. Figures 3 and 4 provide visual summaries of the PLS analyses of the PJF model for Office Workers and Teleworkers. The beta weights for hypothesised relations are indicated on the respective spans in the Figures.

For Office Workers, the hypothesised paths from Abilities and Desires to Personal Outcomes are positive, whilst Supplies and Demands evidence a positive prediction on Organisational Outcomes (see Figure 3). Table 6 shows the unique contribution by each exogenous variable to the explained variance of endogenous variables (path coefficients multiplied by the corresponding correlation between the latent variables). According to Falk and Miller (1992), a predictor variable should account for at least 1.5% of the variance of the predicted variable. As previously mentioned (see Table 2), the variance accounted for in Personal Outcomes is 30.2%, whilst the explained variance for Organisational Outcomes is 27.9%. Desires contribute the majority of accounted variance in Personal Outcomes, with Abilities making an acceptable contribution of just over three percent (see Table 6). Both Supplies and Demands contribute to the prediction of Organisational Outcomes with Supplies contributing just over half the explained variance and Demands explaining slightly less. The intercorrelations between latent

variables can also be used to highlight associations between latent variables that were not specified in the model. Apart from the specified relationships and an unhypothesised inter-correlation between Supplies and Personal Outcomes (.37), the remaining inter-correlations between latent variables were less than $\pm .30$ (see Appendix L).

For Teleworkers the hypothesised path from Abilities to Personal Outcomes is negative whilst Desires to Personal Outcomes is positive. Both Supplies and Demands evidenced positive effects in predicting Organisational Outcomes (see Figure 3). The variance accounted for in Personal Outcomes is 40.5%, whilst the explained variance for Organisational Outcomes is 23.4%. As can be seen from Table 6, Desires accounts for the majority of explained variance in Personal Outcomes, with supplies accounting for the majority of explained variance in Organisational Outcomes. In comparison to the results for Office Workers, the relative contributions of Abilities and Demands are, respectively, slightly increased and slightly decreased. Apart from the specified relationships, the remaining inter-correlations between latent variables were less than $\pm .30$ (see Appendix M).

Table 6

The unique contribution of exogenous variables to endogenous variables

		OfficeWorkers		TeleWorkers	
	<i>Exogenous</i>	<i>Endogenous</i> Personal	<i>Endogenous</i> Organisational	<i>Endogenous</i> Personal	<i>Endogenous</i> Organisational
PJF	Abilities	3.2%		8.6%	
	Desires	27.0%		31.9%	
	Supplies		16.4%		16.7%
	Demands		11.5%		6.7%
xPJF	Abilities	4.7%		9.2%	
	Desires	23.9%		28.4%	
	Home	7.3%	5.5%	5.0%	8.7%
	Supplies		14.4%		15.1%
	Demands		11.2%		6.6%

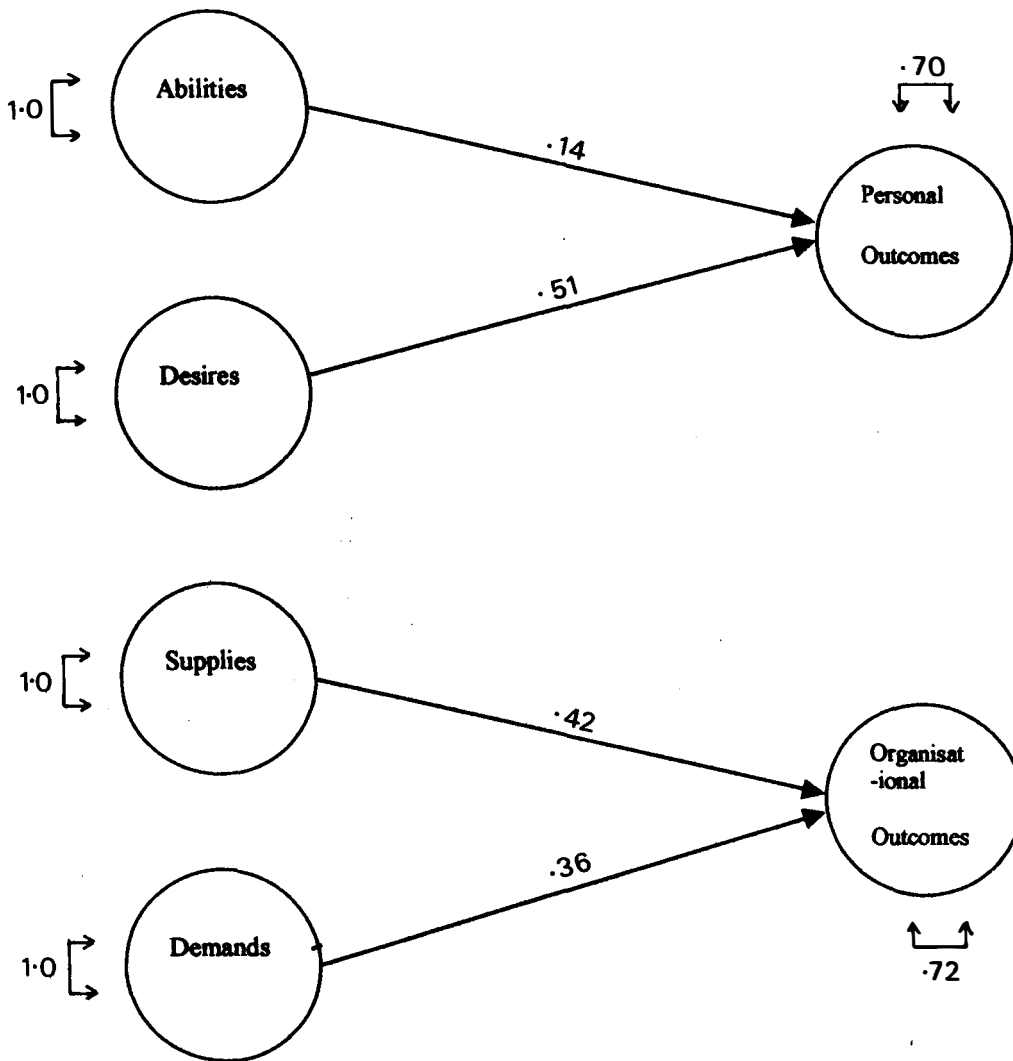


Figure 3. Partial Least Squares Analysis of Person-Job Fit Model for Office Workers

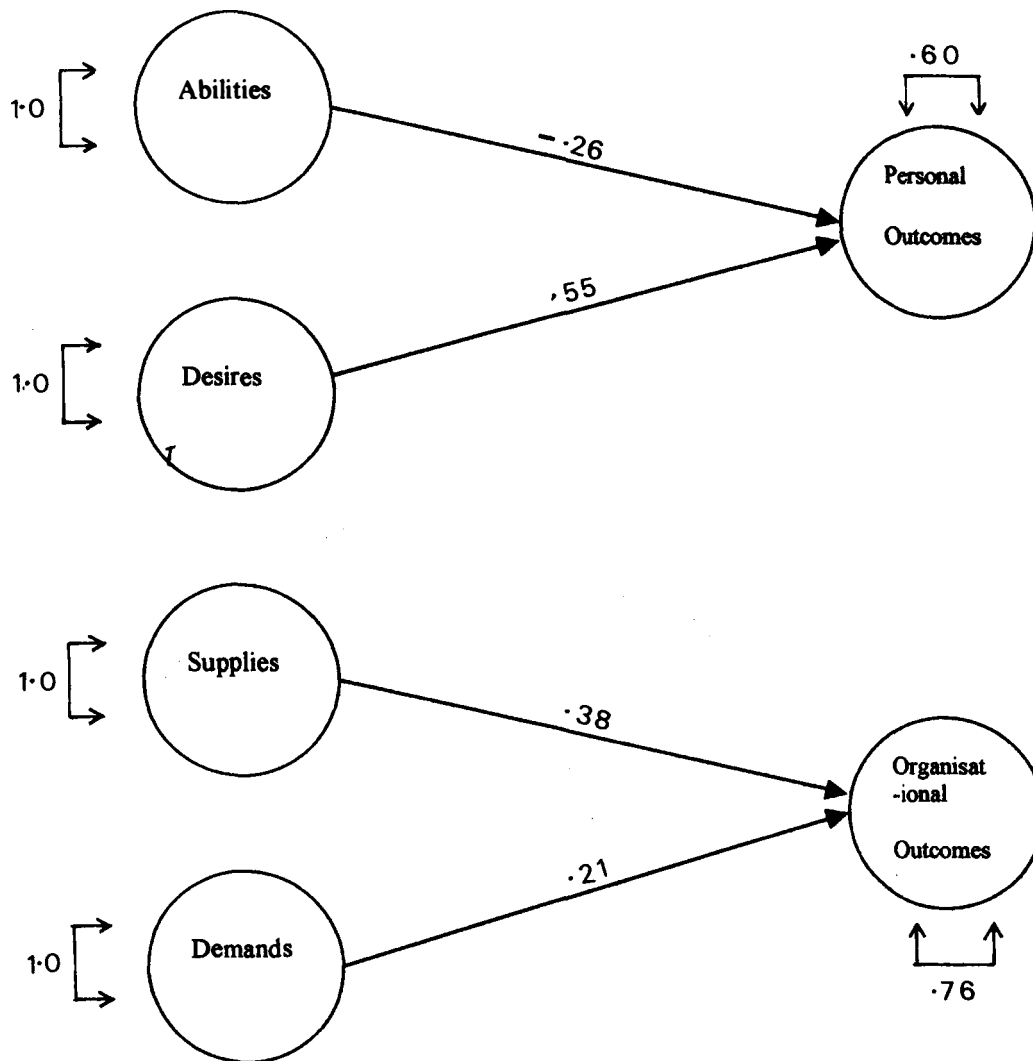


Figure 4. Partial Least Squares Analysis of Person-Job Fit Model for Teleworkers

Extended Person-Job-Fit Latent Variable Model (Inner Model)

Figures 5 and 6 provide visual summaries of the PLS analyses of the Extended Person-Job Fit model for Office Workers and Teleworkers. The model extension involved the specification of paths from Home to Personal and Organisational Outcomes. With the inclusion of these paths, the beta weights for the hypothesised paths from Abilities and Desires to Personal Outcomes, and from Supplies and Demands to Organisational Outcomes, remain substantively unchanged from the Person-Job Fit analyses. Also, there are only small fluctuations in the associated direct effects (see Table 6). Namely, a decrease in the percentage variance accounted for by Desires, a slight increase for Abilities, and a slight decrease for supplies. A moderate positive correlation is noted between Supplies and Personal Outcomes with both Office Workers (.34) and Teleworkers (.38) indicating unspecified relationships between the two constructs (see Appendices N & O).

For Office Workers, the inclusion of Home provides a direct effect to Personal Outcomes and a slightly lower improvement in prediction for Organisational Outcomes. This pattern is reversed with Teleworkers. The interesting differences between the two groups are in the directions of these effects. For Office Workers, Home is a negative predictor of Personal and Organisational Outcomes. The higher the participant scored on home, the lower their respective Personal or Organisational Outcome scores. Home is reversed scored, with higher scores indicating a greater discrepancy between current and desired situations. With respect to Office Workers, this indicates a good fit of current job attributes to desired job attributes as predictive of Personal and Organisational Outcomes (see Figure 5). With Teleworkers, however, the beta weight between Home and Organisational Outcomes is positive (see Figure 6). This indicates that a closer fit between current and desired attributes (i.e., a low score on Home) is associated with lower organisational outcomes for Teleworkers.

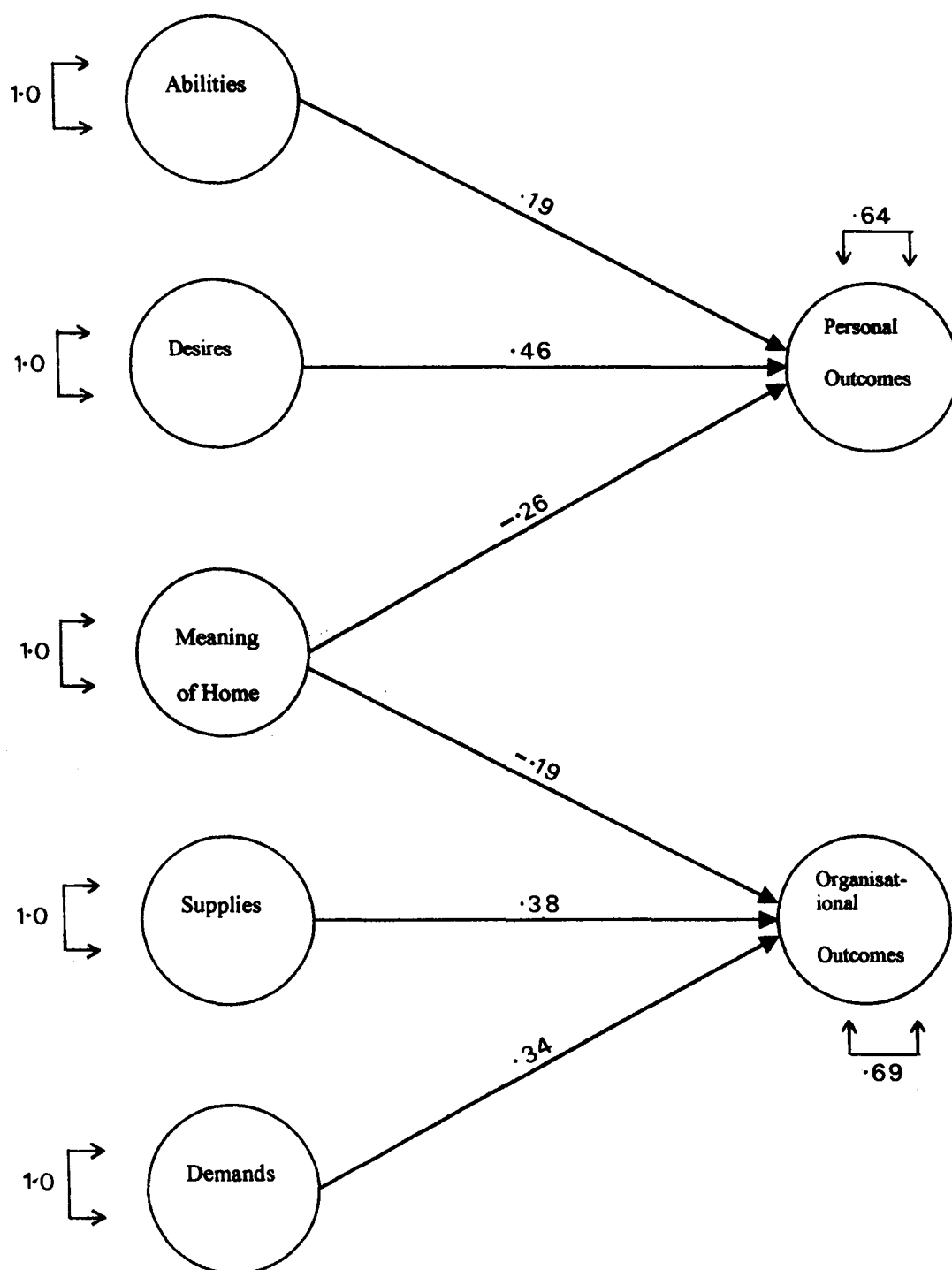


Figure 5. Partial Least Squares Analysis of Extended Person-Job Fit Model for Office Workers.

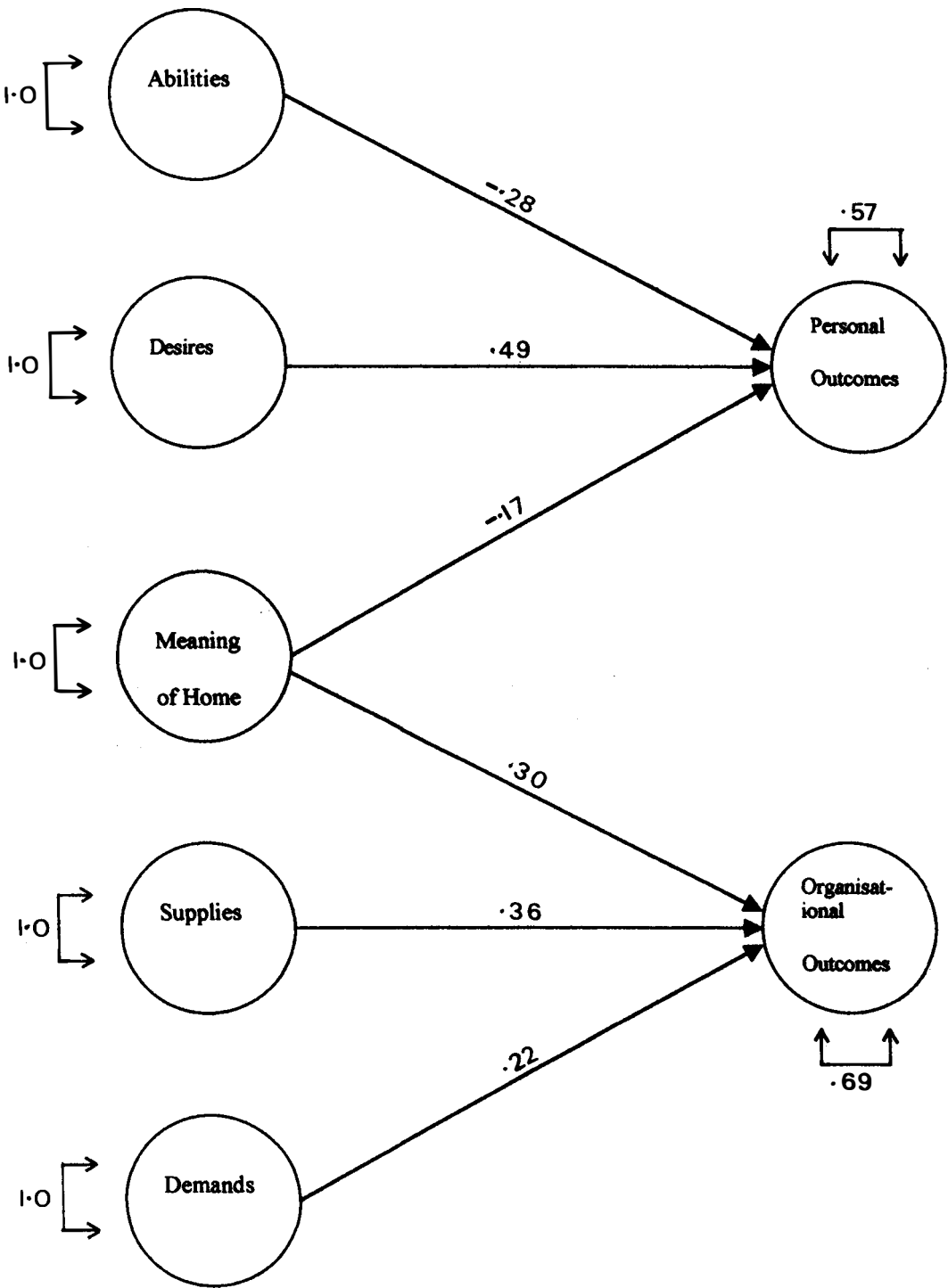


Figure 6. Partial Least Squares Analysis of Extended Person-Job Fit Model for Teleworkers.

Summary of Results

As evidenced by the root mean square covariance, both the Person-Job Fit Model and the Extended Person-Job Fit Model provide adequate to good fits to the data, (Falk & Miller, 1992). Overall F tests also revealed a significant R^2 for each endogenous (i.e., Personal & Organisational Outcomes) variable, further supporting a “goodness of fit” of the models. Whilst the Person-Job Fit Model evidenced a similar “goodness of fit” for both Office Workers and Teleworkers the Extended Person-Job Fit Model provided a better fit for Teleworkers than for Office Workers.

As previously mentioned, “Rules of thumb” for evaluating models are more stringent for the outer model than the inner model (Falk & Miller, 1992). The inner model actually describes a predictive relationship and therefore preserves theoretical ideas, which can be supported or rejected with subsequent research. The outer model is required to have at least three manifest variables for each latent construct. For loadings to substantially contribute they are required to be $\geq .55$ (communality $\geq 30\%$). Variance explained (R^2) is required to be $\geq .10$. Unique contributions by exogenous variables to endogenous variables must be at least 1.5%. The models presented in this study fulfilled the criteria as specified (Falk & Miller, 1992).

Discussion

The stated hypotheses were supported by the results of this study.

Summary of Major Findings

Most notably, the hypothesised effects in the Person-job Fit model predicted Personal and Organisational Outcomes for both Office Workers and Teleworkers (Hypothesis One), and that the model extension using the meaning of home improved these predictions (Hypothesis Two). The tested Person-Job Fit Model proved to be an adequate-to good fit for both Office Workers and Teleworkers. This finding supports Edwards' (1991) call for a person-job fit domain which includes measures of Abilities, Desires, Supplies and Demands as joint predictors of Personal and Organisational Outcomes (see Figure 1). The Extended Person-Job Fit model was an equally good fit as the Person-Job Fit model for Office Workers and a slightly better fit for Teleworkers. The variance explained in Personal and Organisational Outcomes increased from the Person-Job Fit model to the Extended Person-Job Fit model for both Office Workers and Teleworkers. This result shows that the home environment is meaningful in terms of Personal and Organisational Outcomes for both Office Workers and Teleworkers.

For the Person-Job Fit model, both Office Workers and Teleworkers explained more of the variance for Personal Outcomes than for Organisational Outcomes. However, in the extended model, Office Workers' predictions increased mostly for Personal Outcomes, whilst Teleworkers' predictions were highest for Organisational Outcomes. The major difference between the two groups was that for Teleworkers, the direction of the relationship with Organisational Outcomes was reversed.

In summary, the results for the overall Person-Job Fit model confirms that Abilities, Desires, Supplies and Demands act a joint determinants of Personal and Organisational Outcomes. That is the Person-Job fit model, based on the conceptual domain proposed

by Edwards (1991) has been empirically confirmed. Furthermore, the findings for the overall Extended Person-Job Fit model suggests that home and work do overlap for both Office Workers and Teleworkers (Ahrentzen, 1989;1990; Groves, 1996a). Furthermore, the Extended Person-Job fit model is a better description of the relationship between the Teleworker and the Organisation.

The above findings are discussed in more detail by descriptively analysing the exogenous variables (Abilities, Desires, Supplies and Demands) in relation to the endogenous variables (Personal Outcomes and Organisational Outcomes). The Person-Job Fit Model and the Extended Person-Job Fit model are discussed separately.

Person-Job Fit Model.

With the Person-Job Fit model for Office Workers, Abilities and Desires were positive predictors of Personal Outcomes, and Supplies and Demands were positive predictors of Organisational Outcomes. For Teleworkers Abilities was a negative predictor, whilst Desires was a positive predictor of Personal Outcomes. The contribution of each exogenous variable (Abilities, Desires, Supplies and Demands) to Personal and Organisational Outcomes are discussed.

Abilities and Personal Outcomes. For Office Workers the component weights for abilities indicate that Personal Outcomes (i.e., general satisfaction, growth satisfaction and internal work motivation) are associated with postgraduate qualifications. Undergraduate and Technical (TAFE) qualifications are associated with lower levels of Personal Outcomes. Office workers who didn't obtain a university or technical qualification fall between these two subgroups.

French, Caplan and Harrison (1982) found that job satisfaction was related to high qualifications and intrinsic motivation, whilst Hesketh and Gardner (1993) and Bretz and Judge (1994) reported that those who fit the job well experience a higher level of job

satisfaction, including growth satisfaction. Furthermore, as all the participants in the current study were engaged in moderate to highly skilled occupations, further support is found in Spreitzer (1995) which showed that improved job content was related to job satisfaction. Aranya, Barak & Amernik (1981) found a positive correlation between vocational satisfaction and professional commitment.

Kelly (1992) found no relationship between abilities and intrinsic motivation. However, it is posited that those employees who achieve a high level of academic success are also likely to be internally motivated. It may be that there is a “flow-over effect” from the motivation to study and motivation for work, or that the reward of a satisfying job is adequate compensation for these employees. It is also likely that a perception of fit by employees between the demands of the job and their abilities could enhance general satisfaction and intrinsic motivation (Hesketh & Gardner, 1993).

For Teleworkers, however, Abilities is a negative predictor of Personal Outcomes. General satisfaction and internal work motivation are associated with Teleworkers who have technical qualifications and specific skills training. Lower levels of satisfaction and motivation were evidenced for teleworkers who had undergraduate university qualifications. It is interesting that teleworkers who attained high school or postgraduate qualifications fell between these two extremes.

Unlike Office Workers, those Teleworkers who were educated to TAFE level or who had gained specific skills relating to their work, indicated they were generally satisfied with their work and were intrinsically motivated. This finding is congruent with DeSanctis (1984) who found that Teleworking was more likely to be satisfying amongst employees who experienced lower seniority. Interestingly, Salomon and Salomon (1984) reported that professional employees were less likely to Telework because they

were seen to have stronger ties to the organisation than less skilled employees, further substantiating the current finding.

Desires and Personal Outcomes. There are a number of differences between Office Workers and Teleworkers in the inter-relationship between Desires and Personal Outcomes. The notable difference was that Office Workers emphasised contextual desires, whereas Teleworkers emphasised psychological desires.

The satisfaction and motivation of Office Workers is positively associated with a desire for job security, a good relationship with their supervisor and lower knowledge of results. That is, Office Workers who desired context attributes of a high level of job security, a good relationship with their supervisor and little desire for knowledge of results were positively associated with personal outcomes of satisfaction and intrinsic motivation. Hrebiniak and Roteman (1973) and Betz (1984) found a positive relationship between job security and job satisfaction. Satisfaction with supervision generally involves satisfying communication between supervisor and employee and clarity of role expectations. For those employees who value this attribute a positive correlation with job satisfaction has been found (Ivancevich & Donnelly, 1974; Lefkowitz, Somers & Weinberg, 1984; Lyons, 1971; Miles & Petty, 1975). A low level of desire for feedback of results in relation to satisfaction is not supported by the research literature (Wanous, 1974). However, although not of adequate value within the model, the amount of feedback available for this sample exceeded the level desired allowing for a contribution to satisfaction.

Desires exceeded supplies for satisfaction of supervision, and desire levels were closer to supplies for job security (see Table 4), therefore the current outcome level of satisfaction and motivation was not reliant on fit. Smith, Kendall & Hulin (1969) found that fit was dependent on congruency between desires and supplies. Conversely,

Hreniniak and Roteman (1973) found positive correlations for job attributes in terms of outcomes, when desires exceeded supplies. Support for Smith, Kendall & Hulin (1969) was found in studies by Bretz & Judge (1994), and Hesketh and Gardner (1993). The current results and previous research findings further evidence the inconsistency of findings in the area of person-job fit.

For Teleworkers, satisfaction and internal work motivation were positively associated with desires for the contextual attribute of pay satisfaction, and the psychological attributes of responsibility for work, meaningful work and knowledge of results. That is, a satisfied and motivated Teleworker perceives control of meaningful work, which is valued and rewarded. De Sanctis (1984) reported that Teleworkers were more likely to experience lower pay levels, however, it is possible that satisfaction is not associated with the actual level of pay. Hackman and Oldham (1980) stated that the psychological satisfaction of experienced responsibility for work, experienced meaning of work and knowledge of results were conducive to intrinsic motivation. Furthermore, DuBrin (1991) found that meaningful work and responsibility for work were associated with high levels of satisfaction and internal work motivation in Teleworkers. Olson (1988) reported that greater responsibility for work outcomes enhanced the satisfaction of teleworking. Standen and Omari (1997) found in their survey that frequent feedback was important to Teleworkers.

For Office Workers, Desires exceeded Supplies for satisfaction with Supervision and Job Security, whereas the desire for Feedback of Results was lower than the level supplied. For Teleworkers, Desires exceeded Supplies for Pay Satisfaction, Experienced Responsibility for Work, Experienced Meaning of Work and Knowledge of Results.

In summary, Desires made the largest contribution of all the exogenous variables for both the Person-Job Fit model and the Extended Person-Job Fit model. Desire/outcome

fit, largely depended on the level to which an employee desires a particular job attribute. That is, employees only respond to a particular attribute if it is perceived to be meaningful or beneficial to the individual (Ivancevich & Donnelly, 1974; Lefkowitz, Somers & Weinberg, 1984; Lyons, 1971; Miles & Petty, 1975; Rice, Gentile & McFarlin, 1991; Wanous, 1974). This finding supports Hesketh and Gardner's (1993) suggestion that employees need to be assisted to clarify their needs, interests and values in relation to work preferences and opportunities.

The differences between Desires for Office Workers and Teleworkers can be attributed to the individual needs, interests and values they identify within their different work environments (Sargent & Groves, 1996).

The second part of the Person-job Fit model considers outcomes that directly benefit organisations, which are predicted by the Supplies and Demands of the job.

Supplies and Organisational Outcomes. Those Office Workers who were supplied with meaningful work experienced good health, low absenteeism and low job turnover. When the job is meaningful, it is also likely to be challenging and to stretch the workers skills and abilities commensurate with the level of commitment (Blau, 1987), job variety and task identity (Hackman & Oldham, 1980). Lower turnover was correlated with meaningful work (Meglino, Ravlin and Adkins, 1989), whilst O'Reilly, Chatman and Caldwell (1991) found a positively lower turnover rate correlated with meaningful work. Furthermore, Blau (1987) stated that fit was positively correlated with higher-job involvement, and Moos (1987) reported a positive correlation between perceived fit and improved health. There does not appear to be any direct support for the association between meaningful work and low absenteeism. However, it is posited that considering those employees who experienced good health and low turnover rates also experienced meaningful work involvement, it is likely that absenteeism would be similarly associated.

Teleworkers are found in jobs, which supply high levels of independence. For those Teleworkers who value independence there is a relationship with low levels of absenteeism. Ramsower (1985) found that Teleworkers experienced more independence in their work and reported no difference between Office Workers and Teleworkers in relation to absenteeism. Standen and Omari (1997) reported improvement of morale and less absenteeism in Teleworkers of Public Service agencies. Teleworkers also expressed that the more independence that their work supplied them, the lower their level of absenteeism.

It is also noted that for the extended model, Teleworkers reported increased psychological and physical health (see Table 5). It can only be posited that the addition of home has improved the relationship between Independence and Psychological and Physical Health, however no further explanation is offered at this time.

Finally, it is interesting to note that the level of meaningful work available to Office Workers greatly exceeds the level desired. Similarly, the level of independence available to Teleworkers greatly exceeds the level desired (See Table 4).

Demands and Organisational Outcomes. For Office Workers, Workload is positively associated with Psychological and Physical Health, low Absenteeism and low Turnover. According to French, Caplan and Harrison (1982), a high workload, which exceeds the abilities of the employee results in high levels of stress and high turnover. Therefore for the Office Workers who experienced low workload it is reasonable to expect that they would enjoy good health and have lower turnover rates. Furthermore, low absenteeism can be attributed to good health and low workload, although absenteeism is not always associated with ill-health. Office-workers are likely to have absences from work to attend to family responsibilities due to more restricted work hours than enjoyed by Teleworkers (Ramsower, 1985).

Teleworkers who valued a low workload and irregular (flexible) work hours were associated with low absenteeism. A low workload for this group discounts the fears associated with telework and workaholism (Standen & Omari, 1997). Furthermore, flexible work hours allow Teleworkers to attend to personal commitments during office hours as they can rearrange their work schedule to accommodate other responsibilities (Sargent & Groves, 1996; Hartman, et al. 1991).

For Office Workers, an unhypothesised positive correlation (.37) was found between Supplies and Personal Outcomes in the Person-Job Fit model. That is, a positive correlation exists between Experienced Meaning of Work and General Satisfaction, Growth Satisfaction and Internal Work Motivation. In the Extended Person-Job Fit model a positive correlation (.34) was also noted between Supplies and Personal Outcomes for Office Workers.

For Teleworkers, a positive correlation (.38) is noted between Supplies and Personal Outcomes and Teleworkers in the Extended Person-Job Fit Model. That is an unspecified relationship exists between Independence and General Satisfaction and Internal Work Motivation. No assumptions are made regarding the nature of these relationships.

Extended Person-Job Fit Model

The Meaning of Home. The inclusion of Home in the Person-job Fit model did not change the interpretation of inter-relationships of Abilities and Desires with Personal Outcomes, or Supplies and Demands with Organisational Outcomes. That is, direct effects and weights and loadings were similar for both models. However, it did result in a better model fit for Teleworkers than for Office Workers and highlighted important differences between the groups.

As previously mentioned, the addition of the Home predicted more variance in Personal Outcomes for Office Workers, whereas with Teleworkers it predicted more of the variance in Organisational Outcomes. With Office Workers, a larger gap between current and desired meanings of home was predictive of lower Organisational and Personal Outcomes. Although, the R^2 improved with the inclusion of Home for both groups, the direction of the relationship with Organisational Outcomes is reversed for Teleworkers (see Figure 6). This finding indicated that lower absenteeism and higher general health for Teleworkers (see Table 4) are associated with larger discrepancies between current and desired meanings of home in the areas of Expression, Privacy, and Socio-Cultural Context. For Office Workers there was a positive direction of the relationship with Personal Outcomes. That is, general satisfaction, growth satisfaction and internal work motivation are associated with a better fit between current and desired meanings of home in the areas of Identity, Attachment, Change and Cultural Context for Office Workers. A small positive direct effect was also noted between the meaning of home and Organisational Outcomes (see Figure 5).

The reversed relationship between Teleworkers and Organisational Outcomes indicates that Teleworkers who are satisfied with their work and the organisation, are less likely to be concerned with the psychological aspects of home. That is, Teleworkers may not attach the same mental representation to home that other workers find conducive to a satisfying home environment (Deprés, 1991; Groves, 1996b; Tognoli, 1987).

Teleworkers who did not place importance on home as a place to express their individuality, freedom and character were associated with low absenteeism and good health. Furthermore, those that did not need their home to be a place where they could have privacy and relaxation, or where they could enjoy entertaining friends and interact freely without interruption with family were associated with low absenteeism and good

health. Lastly, Teleworkers who did not need their home to be orderly and in keeping with their culture were more likely to be predictive of better organisational outcomes. These findings indicate that Teleworkers who fit the organisation may not need to consider their home to be separate from their work. A small positive direct effect was also found for the meaning of home and Personal Outcomes of General Satisfaction and Internal Work Motivation (see Figure 6).

These findings are of benefit to the organisation and the teleworker. The moderate need expressed by teleworkers to be able to regulate their social relationships, privacy requirements and opportunities for self-expression may be a trade-off for the satisfaction, autonomy and independence Teleworkers experience (DuBrin, 1991). However, the discrepancies between the desired and current meaning of home can be seen as being mostly beneficial to the organisation. This study is unable to causally identify why these Teleworkers possibly relinquished their meaning of home in favour of the organisation.

However, the predictive conclusions to be drawn from these results are twofold. That is, Teleworkers adjust their perceptions to maintain homeostasis between a satisfying work environment and a satisfying home environment. Secondly, this group of teleworkers had a mean length of service in the same job of 3.86 years, which would possibly have given them time to eliminate any impediments to teleworking. This postulation is supported by Ahrentzen's (1989) report that her sample of 104 home-workers did not experience role conflict, either because they had been teleworking for four years and had resolved conflicts, or that those that did not may have already left this type of work.

The above conclusions can be further explained by individuals ability to absorb change over time, and by considering that the potential impacts of teleworking are determined by the distinction between the home activities and the applied meaning (Groves, 1996b).

Office workers indicated a good fit of Current and Desired meaning of home, which emphasised prediction of Personal Outcomes (Groves, 1996b). Office workers contributed moderately to Personal Outcomes with the inclusion of the Meaning of Home, compared to the teleworkers contribution to Organisational Outcomes. That is, the higher their mental representation of the home, the more satisfied they appeared in terms of personal outcomes of general satisfaction and growth satisfaction. Office workers reported that in relation to their home environment they valued their identity, attachment, flexibility for change and cultural context. Similarly, they recorded good levels of psychological and physical health in regard to organisational outcomes (Edwards & Harrison, 1993), which is an indicator of a positive mental representation of the home environment (Groves, 1996b). These results for office-workers are more consistent with the research findings and theory related to the meaning of home and the overlap between the work and home domains (Ahrentzen, 1989; 1990; Groves, 1996b; Tognoli; 1987, Deprés, 1991).

Furthermore, office-workers absenteeism rate was higher than for teleworkers, which in light of their loading for psychological and physical health may not be attributable to poor health. It is possible that office workers take time away from the office to attend to personal interests and responsibilities, as their work hours are not as flexible as work arrangements for teleworkers (Standen & Omari, 1997).

These findings support the research literature regarding the mental representation of home (Ahrentzen, 1989; 1990; Groves, 1996b; Tognoli; 1987, Deprés, 1991). The office workers expressed a higher psychological value on the home environment than teleworkers, which may be due to them being able to separate their work and home domains more effectively than teleworkers. Although much of the literature states that home and work environments influence each other (Ahrentzen, 1989; 1990; Frone,

Russell & Cooper, 1992; Groves, 1996b; Deprés, 1991), a dichotomous situation exists. That is, Salomon and Salomon (1984) reported that work and home give rise to different role behaviours, therefore separation of the home environment from the work domain by commuting to work may help to shed competing roles and behaviours (Ahrentzen, 1990). Also, the separate domains may help to reduce the transfer of one life sphere into the other (Shamir & Salomon, 1985). A reason why the office workers reported congruence between Current and Desired responses, could be due to them being able to be more objective in their feelings regarding their home as they did not have to fuse the two domains.

Limitations of the Study

The limitations of this study are the inability to infer causality due to the method of analyses. Therefore the Person-Job Fit Model and the Extended Person-Job Fit are descriptive models which are predictive of the differences between Office Workers and Teleworkers.

The sample for this study was drawn from networking through known teleworkers and office workers, without any organisational involvement. The questionnaire was detailed and lengthy to cover all the variables for the abilities, desires, supplies and demands measures to determine if they could be combined into one person-job fit model. It is suggested that this sample were particularly helpful, knowing that the researcher was recruiting for purely academic purposes. Respondents were most likely to be from a different sample than those recruited within organisations as by networking there may be a degree of collegial involvement. Therefore, the findings from this study should be replicated to determine generalisability of the results.

Furthermore, there was no distinction made within the teleworking sample between part-time and full-time Teleworkers, although many variables were controlled. The

research literature did record differences between part-time and full-time Teleworkers (Becker, 1986; Groves, 1996a; Katz, 1987; Mokhtarian, 1991; Ramsover, 1985; Standen & Omari, 1997). In particular, part-time Teleworkers were able to maintain more social contact and communication with the organisation than full-time Teleworkers.

The time limit for this thesis precluded opportunity for a longitudinal investigation, which may have been able to infer causality. Future research in this area would be advised to establish enquiry with newly recruited Teleworkers and Office Workers' controls to measure changes in perceptions of work and home that may occur over a period of time. Furthermore a study which could utilize both qualitative and quantitative methods of enquiry and analysis, would be more likely to obtain a more meaningful domain of information than elicited from this thesis.

Finally, no other published research incorporating Abilities, Desires, Supplies and Demands as joint determinants of Personal and Organisational Outcomes was found with which to compare the current findings.

Methodological Considerations

Partial Least Squares analysis is a predictive technique and causality cannot be implied for any of the results. However, it is a useful tool for enquiry and development of theory and model testing. Further research in this area may be able to use techniques to infer causality. Many of the manifest variables did not load on their respective latent constructs, particularly for Desires and Supplies. Ideally, these models should be retested on a further sample to confirm the current findings. Furthermore, a replication eliminating the variables that did not load meaningfully, may derive more attributes of importance and a better fit between the exogenous and endogenous variables. Extension of the use of commensurate measures for Abilities and Demands may also be worthwhile to predict outcomes. That is, parallel responses such as the level of ability or specific skill offered

by the employee measured against the level of ability or specific skill demanded by the organisation (Edwards, 1991).

Future Research

This thesis provides a basis for future research regarding Person-job Fit models. For employees and organisations to achieve successful person-job fit in response to differing work environments it is essential that the relevant job attributes and desired outcomes for differing situations be identified. Recognising the composition of successful person-job fit has implications for recruitment, employment conditions and the planning of changes to organisational structure. It is suggested that a future test of the Person-Job Fit model would substitute other manifest variables to measure the exogenous constructs of Abilities, Desires, Supplies and Demands. An update to Edward's (1991) Person-Job Fit domain in terms of both Personal and Organisational Outcomes would also be worthy of consideration. It is possible that the measures used were not indicative of the current work environment, as the structure of organisations have changed significantly in the past decade (Cordery, 1997; Stevens & Campion, 1994) and other variables may now be more relevant for measuring these constructs. Recommendations by Cordery (1997) include autonomy, empowerment, and self efficacy as outcome measures for both group workers and individuals. The ability to work autonomously and in a decentralised work environment will have further impact on work design and theory (Bridges, 1994; Groves, 1996a; Bowen, Ledford & Nathan, 1991; Howard, 1995; Standen & Omari, 1997).

In light of the research which indicates that the meaning of home is both an interactive and individual perception (Ahrentzen, 1990; Groves, 1996b; Smith, 1994) a future test of the Extended Person-Job Fit model should include a measure of the perceptions of the partners of Teleworkers and Office Workers. Groves (1996a) found in a case study that whilst the Teleworker was positive about the outcomes of teleworking, the partner did not

consider that teleworking would be beneficial to their relationship or for the home environment in general. Although for the current study the health of both Office Workers and Teleworkers appeared positive, incongruence between the desires of family members can cause stress (Sargent & Groves, 1996; Shamir & Salomon, 1985), which could prove costly to both organisations and employees.

In summary, there were identifiable differences between the perceived Desires and the Supplies available in their jobs for Office Workers and Teleworkers. There were also recorded differences in their perception of the home environment. That is, organisations appear to offer different supplies to Office Workers and Teleworkers and the attributes desired by both groups were different. It would be expedient for organisations to recognise these differences in planning the implementation of Telework (Groves, 1996a; Standen & Omari, 1997). There is also the possibility that Teleworkers are inherently different in personality traits (Salomon & Salomon, 1984) to their office-based counterparts, therefore future studies should include a measure of personality type.

Conclusion

The tested Person-Job fit model based on Edwards (1991) person-job fit domain theory was a moderate to good fit for both Office Workers and Teleworkers. The inclusion of abilities, desires, supplies and demands as joint predictors of personal and organisational outcomes produced a descriptive model. The Extended Person-Job Fit Model was a slightly better fit for Teleworkers than Office Workers. The extended model with the inclusion of the home (Groves, 1996b) expresses that the teleworking benefits the organisation in terms of outcomes more than personal outcomes for the employee (Gordon, 1984, Norman et al. 1995, Salomon & Salomon, 1984)

Finally, the value of the inclusion of the home environment in person-job fit theory has been justified in this thesis. The above results and discussion have shown that the

home does impact on teleworkers and the benefits of telework accrue mostly to the organisation (Salomon & Salomon, 1984). That is the home environment impacts more on Teleworkers than Office Workers in relation to work (Groves, 1996a). The Extended Person-Job Fit model was a better fit for Teleworkers and they contributed more negatively to Organisational Outcomes whereas Office Workers contributed more positively to Personal Outcomes. Differences were found between Office Workers and Teleworkers in relation to the job and home attributes they perceived to be of value or were available to them. It is therefore recommended that future person-job fit research include constructs which measure interpersonal relations and the home environment.

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Appendix A

Demographics

*Gender, Age, Domicile, Years at Current Residence, Number of Residents,
Job Title, Job Description.*

Gender? Male ☐ Female ☐

What is Your Age? 18-30 ☐ 31-45 ☐ 46-60 ☐ 61-70 ☐

What is the postcode of where you live? _____

How long have you been living at your current address? a) Years _____

or

b) Months _____

How many people live at your home? _____

If not identifying could you please give your Job Title? _____

If not identifying, could you please give a brief description of your job? _____

Appendix B

Abilities

What year did you complete at school? Year 10 ☐

Year 12 ☐

What further qualifications or courses have you undertaken?

University Degree _____

T.A.F.E. Certificate, Diploma or Associate Diploma _____

Postgraduate University Degree _____

Special courses or skills training related to your job _____

Appendix C

Job Diagnostic Scale (JDS: Hackman & Oldham, 1980)

Desired Aspects and Current Aspects

Items - Current and Desired Responses

Feedback from agents/supervisorsSection 1 #2 Section 2 #3, #4
Satisfaction dealing with others....	Section 1 #1 Section 2 #1, #2
Experienced meaning of work.....	Section 3 #2, #4 Section 5 #1, #4
Experienced responsibility of work	Section 3 #1, #5, #7, #8 Section 5 #2, #5
Knowledge of results	Section 3 #3, #6 Section 5 #3, #6
Job security	Section 4 #1, #6
Pay satisfaction	Section 4 #2, #5
Satisfaction with supervision	Section 4 #3, #4, #7

QUESTIONNAIRE

Section 1

The following questions ask you to describe your CURRENT job as objectively as you can. Please also indicate how close your job is to your DESIRED job.

1. To what extent does your job require you to work closely with other people (either “clients” or people in related jobs in your organisation)

1 = Very little; dealing with people
is not at all necessary in doing the job

4 = Moderately; some dealing
with others is necessary

7 = Very much; dealing with other people
is an absolutely essential and crucial part of the job

Current: 1.....2.....3.....4.....5.....6.....7

Desired: 1.....2.....3.....4.....5.....6.....7

2. To what extent do managers and co-workers let you know how well you are doing with your job?

1 = Very little; people almost never let me
know how well I am doing.

4 = Moderately; sometimes
people may give me
“feedback”; other times
they may not.

7 = Very much; managers or coworkers provide me with
almost constant ‘feedback’ about how well I am doing.

Current: 1.....2.....3.....4.....5.....6.....7

Desired: 1.....2.....3.....4.....5.....6.....7

Section 2

Once again, please try to be as objective as you can in deciding how accurately each statement describes your **CURRENT** job regardless of whether you like or dislike your job. Then, again say how closely these statements are to your **DESIRED** job.

Write a number in each of the blanks beside each statement, based on the following scale.

How accurate is the statement in describing your job?						
1	2	3	4	5	6	7
Very Inaccurate	Mostly Inaccurate	Slightly Inaccurate	Uncertain	Slightly Accurate	Mostly Accurate	Very Accurate

	CURRENT	DESIRED
--	---------	---------

1. The job requires a lot of cooperative work with other people.

_____	_____
-------	-------

2. The job can be done adequately by a person working alone -without talking or checking with other people.

_____	_____
-------	-------

3. The supervisors and coworkers on this job almost never give me any "feedback" about how well I am doing in my work.

_____	_____
-------	-------

4. Supervisors often let me know how well they think I am performing the job.

_____	_____
-------	-------

Section 3

Now please indicate how you personally feel about your job.

Each of the statements below is something that a person might say about his or her job. You are to indicate your own personal feelings about your CURRENT job by marking how much you agree with each of the statements. Again, please also say how close these feeling are to how you would DESIRE to feel about your job.

Write a number in the blank for each statement, based on this scale:

How much do you agree with the statement?

1
Disagree
Strongly

2
Disagree

3
Disagree
Slightly

4
Neutral

5
Agree
Slightly

6
Agree

7
Agree
Strongly

CURRENT DESIRED

1. It's hard, on this job, for me to care very much about whether or not the work gets done right.

2. Most of the things I have to do on this job seem useless or trivial.

3. I usually know whether or not my work is satisfactory on this job.

4. The work I do on this job is very meaningful to me.

5. I feel a very high degree of personal responsibility for the work I do on this job.

6. I often have trouble figuring out whether I am doing well or poorly on this job.

7. I feel I should personally take the credit or blame for the results of my work on this job.

8. Whether or not this job gets done right is clearly my responsibility.

Section 4

Now please indicate how satisfied you are with each aspect of your CURRENT job listed below. Again, please indicate how close this satisfaction is to your DESIRED job. Write the appropriate numbers in the blanks beside each statement.

How satisfied are you with this aspect of your job?

1
Extremely
Dissatisfied

2
Dissatisfied

3
Slightly
Dissatisfied

4
Neutral

5
Slightly
Satisfied

6
Satisfied

7
Extremely
Satisfied

CURRENT DESIRED

- | | | |
|---|-------|-------|
| 1. The amount of job security I have. | _____ | _____ |
| 2. The amount of pay and fringe benefits I receive. | _____ | _____ |
| 3. The degree of respect and fair treatment I receive from my boss. | _____ | _____ |
| 4. The amount of support and guidance I receive from my supervisor. | _____ | _____ |
| 5. The degree to which I am fairly paid for what I contribute to this organisation. | _____ | _____ |
| 6. How secure things look for me in the future of this organisation. | _____ | _____ |
| 7. The overall quality of the supervision I receive in my work. | _____ | _____ |

Section 5

Now please think of the other people in your organisation who hold the same job as you do. If no one has exactly the same job as you, think of the job which is most similar to yours.

Please think how accurately each of the statements describes the feelings of those people about the CURRENT job. Again, also say how closely these statements reflect how they would DESIRE to feel about their job.

It is quite all right if your answers here are different from when you described your own current and desired reaction to the job. Often different people feel quite differently about the same job.

Once again, write a number in the blanks for each statement, based on this scale:

1
Disagree
Strongly

2
Disagree

3
Disagree
Slightly

4
Neutral

5
Agree
Slightly

6
Agree

7
Agree
Strongly

CURRENT DESIRED

1. Most people on this job feel that the work is useless or trivial.

2. Most people on this job feel a great deal of personal responsibility for the work they do.

3. Most people on this job have a pretty good idea of how well they are performing their work.

4. Most people on this job find the work very meaningful.

5. Most people on this job feel that whether or not the job gets done right is clearly their own responsibility.

6. Most people on this job have trouble figuring out whether they are doing a good or a bad job.

Appendix D

Work Aspect Preference Scale (WAPS: Pryor, 1983)

Desired Aspects and Current Aspects

Items - Importance/Desired and Current Responses

Independence	#1, #5, #7, #10
Coworker relationships	#2, #4, #8, #11
Detachment	#3, #6, #9, #12

Different people are attracted to different aspects of work. Please indicate which of the following aspects are available in your current job (e.g. not available, moderately available, available a great deal). Please also indicate how important or how much you would desire this aspect of work (e.g. "quite unimportant" to "extremely important").

Current Rating

1 = Not at all available

3 = Moderately Available

5 = Available a great deal.

1.....2.....3.....4.....5

and

Importance/Desired Rating

1.....2.....3.....4.....5

 Quite Of little Fairly Quite Extremely
 Unimportant Importance Important Important Important

Work in which you.....

**Current
Rating**

**Importance/Desired
Rating**

1....can work as fast or as slow as you like.....

2....have pleasant people to work with.....

3...are not required to do work in your spare time...

4...get to know your fellow workers quite well.....

5...can do your own work in your own way.....

Current Rating

1 = Not at all available

3 = Moderately Available

5 = Available a great deal.

1.....2.....3.....4.....5

and

Importance/Desired Rating

1.....2.....3.....4.....5
Quite Of little Fairly Quite Extremely
Unimportant Importance Important Important Important

Work in which you.....

**Current
Rating**

**Importance/Desired
Rating**

6... can forget the work while you are not there doing it ..

7... can start and finish your work when you like.....

8... are really liked by your fellow workers.....

9... do not have to think of work once you leave the workplace...

10.. determine the way your own work is done.....

11. enjoy the company of the people you work with.....

12.. are not expected to "take work home"

Appendix E

Meaning of Home Scale (MoH: Groves, 1996)

The following statements describe how people can feel about their home. Please indicate how you feel about your CURRENT home. Also, please describe your IDEAL home.

I live in my home because:

	CURRENT HOME				IDEAL HOME			
	Not at all	Seldom	Often	All the time	Not at all	Seldom	Often	All the time
1. I can do what I want.	0	1	2	3	4	5	6	
2. It is full of memories	0	1	2	3	4	5	6	
3 . It is a retreat from the world.	0	1	2	3	4	5	6	
4. I can be alone or with others at will.	0	1	2	3	4	5	6	
5. It provides enough space for activities.	0	1	2	3	4	5	6	
6. It is my style of home.	0	1	2	3	4	5	6	
7. It is a place where I belong.	0	1	2	3	4	5	6	
8. It is a symbol of order.	0	1	2	3	4	5	6	
9. I have a sense of control.	0	1	2	3	4	5	6	
10. Its where my roots are.	0	1	2	3	4	5	6	
11. It is a private place.	0	1	2	3	4	5	6	
12. It has an inviting atmosphere.	0	1	2	3	4	5	6	
13. It allows for a diverse range of activities.	0	1	2	3	4	5	6	
14. It reflects my personality.	0	1	2	3	4	5	6	
15. It is a meaningful place.	0	1	2	3	4	5	6	

16. It conforms with my culture.	0---1---2---3---4---5---6	0---1---2---3---4---5---6
17. It is my territory.	0---1---2---3---4---5---6	0---1---2---3---4---5---6
18. It has a personal history.	0---1---2---3---4---5---6	0---1---2---3---4---5---6
19. It is peaceful in my home.	0---1---2---3---4---5---6	0---1---2---3---4---5---6
20. I can talk to others freely.	0---1---2---3---4---5---6	0---1---2---3---4---5---6
21. I can be spontaneous.	0---1---2---3---4---5---6	0---1---2---3---4---5---6
22. It is individualised by me.	0---1---2---3---4---5---6	0---1---2---3---4---5---6
23. It provides a foundation for my family.	0---1---2---3---4---5---6	0---1---2---3---4---5---6
24. It is part of an organised society.	0---1---2---3---4---5---6	0---1---2---3---4---5---6

Appendix F

Quantitative and Qualitative Work Load

(Caplan, Cobb, French, Harrison & Pinneau, 1975)

The following questions deal with different aspects of your work. Please indicate how often these aspects appear in your job. Please CIRCLE that best describes how frequent the aspects appear.

1. How often does your work require you to work very hard?

1-----2-----3-----4-----5
Very Often Fairly Often Sometimes Occasionally Rarely

2. How often does your job require you to work very fast?

1-----2-----3-----4-----5
Very Often Fairly Often Sometimes Occasionally Rarely

3. How often does your job leave you with little time to get things done?

1-----2-----3-----4-----5
Very Often Fairly Often Sometimes Occasionally Rarely

4. How often is there a great deal to be done?

1-----2-----3-----4-----5
Very Often Fairly Often Sometimes Occasionally Rarely

5. How much slow down in the work do you experience?

1-----2-----3-----4-----5
great deal A lot Some A little Hardly any

6. How much time do you have to think and contemplate?

1-----2-----3-----4-----5
A great deal A lot Some A Little Hardly any

A marked increase in the amount of concentration required on your job?

Hardly or Never	A little of the time	Some of the time	Very often
1-----	2-----	3-----	4

A marked increase in how fast you have to think?

Hardly or Never	A little of the time	Some of the time	Very often
1-----	2-----	3-----	4

What are your regular work hours per week? _____

Do you work regular overtime? _____

If so, how often and how many hours per week? _____

Appendix G

Regular Work Hours and Overtime

What are your regular work hours per week? _____

Do you work regular overtime? _____

If so, how often and how many hours per week? _____

Appendix H

Job Diagnostic Scale (Hackman & Oldham, 1980)

Growth Satisfaction, General Satisfaction, Internal Work Motivation

Items- Current Responses

Growth satisfaction	Section 4	#1, #2, #3, #4
General satisfaction	Section 3	#2, #4, #6
	Section 5	#2, #3
Internal work motivation	Section 3	#1, #3, #5, #7
	Section 5	#1, #4

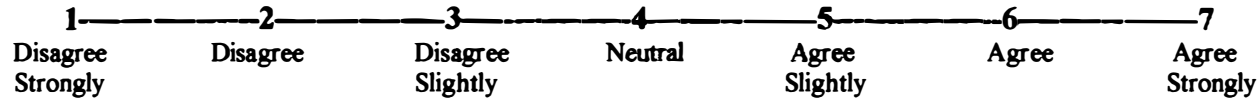
Section 3

Now please indicate how you personally feel about your job.

Each of the statements below is something that a person might say about his or her job. You are to indicate your own personal feelings about your **CURRENT** job by marking how much you agree with each of the statements.

Write a number in the blank for each statement, based on this scale:

How much do you agree with the statement?



CURRENT

1. My opinion of myself goes up when I do this job well. _____
2. Generally speaking, I am very satisfied with this job. _____
3. I feel a great sense of personal satisfaction when I do this job well. _____
4. I frequently think of quitting this job. _____
5. I feel bad and unhappy when I discover that I have performed poorly on this job. _____
6. I am generally satisfied with the kind of work I do on this job. _____
7. My own feelings generally are not affected much one way or the other by how well I do on this job. _____

Section 4

Now please indicate how satisfied you are with each aspect of your **CURRENT** job listed below. Write the appropriate numbers in the blanks beside each statement.

How satisfied are you with this aspect of your job?

1 ————— 2 ————— 3 ————— 4 ————— 5 ————— 6 ————— 7
Extremely Dissatisfied Slightly Neutral Slightly Satisfied Extremely
Dissatisfied Dissatisfied Satisfied Satisfied

CURRENT

1. The amount of personal growth and development I get in doing my job.
2. The feeling of worthwhile accomplishment I get from doing my job.
3. The amount of independent thought and action I can exercise in my job.
4. The amount of challenge in my job.

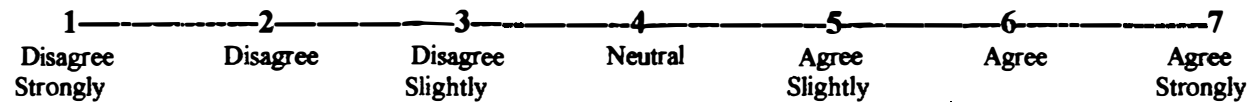
Section 5

Now please think of the other people in your organisation who hold the same job as you do. If no one has exactly the same job as you, think of the job which is most similar to yours.

Please think how accurately each of the statements describes the feelings of those people about their **CURRENT** job.

It is quite all right if your answers here are different from when you described your own current and desired reactions to the job. Often different people feel quite differently about the same job.

Once again, write a number in the blanks for each statement, based on this scale:



CURRENT

1. Most people on this job feel a great sense of personal satisfaction when they do the job well.

2. Most people on this job are very satisfied with the job.

3. People on this job often think of quitting.

4. Most people on this job feel bad or unhappy when they find that they have performed the work poorly.

Appendix I

General Health Questionnaire (GHQ: Goldberg, 1972)

Please read this section carefully. We would like to know if you have had any medical complaints and how your health has been in general, over the past few weeks. Please answer ALL the questions simply by underlining the answer which you think most nearly applies to you. Remember we want to know about present and recent complaints, not those that you had in the past.

It is important that you try to answer ALL the questions.

Have you recently:

Been feeling perfectly well and in good health?	Better than Usual	Same as usual	Worse than usual	Much worse than usual
Been feeling in need of a good tonic?	Not at all	No more than usual	Rather more than usual	Much more than usual
Been feeling run down and out of sorts?	Not at all	No more than usual	Rather more than usual	Much more than usual
Felt that you are ill?	Not at all	No more than usual	Rather more than usual	Much more than usual
Been getting pains in your head?	Not at all	No more than usual	Rather more than usual	Much more than usual
Been getting a feeling of tightness or pressure in your head?	Not at all	No more than usual	Rather more than usual	Much more than usual
Been having hot and cold spells?	Not at all	No more than usual	Rather more than usual	Much more than usual
Lost much sleep over worry?	Not at all	No more than usual	Rather more than usual	Much more than usual
Had difficulty staying asleep once you are off?	Not at all	No more than usual	Rather more than usual	Much more than usual

Have you recently:

Felt constantly under strain?	Not at all	No more than usual	Rather more than usual	Much more than usual
Been getting edgy and bad-tempered?	Not at all	No more than usual	Rather more than usual	Much more than usual
Been getting scared or panicky for no good reason?	Not at all	No more than usual	Rather more than usual	Much more than usual
Found everything getting on top of you?	Not at all	No more than usual	Rather more than usual	Much more than usual
Been feeling nervous and strung-up all the time?	Not at all	No more than usual	Rather more than usual	Much more than usual
Been managing to keep yourself busy and occupied?	More so than usual	Same as usual	Rather less than usual	Much less than usual
Been taking longer over the things you do?	Quicker than usual	Same as usual	Longer than usual	Much longer than usual
Felt on the whole you were doing things well?	Better than usual	About the same	Less well than usual	Much less well
Been satisfied with the way you've carried out your task?	More satisfied	About same the same	Less satisfied than usual	Much less satisfied
Felt that you are playing a useful part in things?	More so than usual	Same as usual	Less useful than usual	Much less useful
Felt capable of making decisions about things?	More so than usual	Same as usual	Less so than usual	Much less capable
Been able to enjoy your normal day-to-day activities?	More so than usual	Same as usual	Less so than usual	Much less than usual

Have you recently:

Been thinking of yourself as a worthless person?	Not at all	No more than usual	Rather more than usual	Much more than usual
Felt that life is entirely hopeless?	Not at all	No more than usual	Rather more than usual	Much more than usual
Felt life isn't worth living?	Not at all	No more than usual	Rather more than usual	Much more than usual
Thought of the possibility that you might make away with yourself?	Definitely Not	I don't think so	Has crossed my mind	Definitely have
Found at times you couldn't do anything because your nerves were too bad?	Not at all	No more than usual	Rather more than usual	Much more than usual
Found yourself wishing you were dead and away from it all?	Not at all	No more than usual	Rather more than usual	Much more than usual
Found the idea of taking your own life kept coming into your mind?	Definitely not	I don't think so	Has crossed my mind	Definitely has

Appendix J

Absenteeism and Turnover

The following questions are asked to find out how many unscheduled days you have been absent from work in the last month.

No. of days? 1 - 3 ☐ 4 - 7 ☐ More ☐

No. of days your were sick? _____

No. of days attending to private business e.g. Family illness? _____

How long have you been in your present position? (Please specify only one)

_____ 0-6 months

_____ 3-5 years

_____ 6-12 months

_____ 5-10 years

_____ 1-2 years

_____ 10 years or more years

What is your usual place of work?:

☐ Office

☐ Home

Appendix K

Letter to Participants

(Instructions and Permission Request)

LETTER TO PARTICIPANTS

Dear Participant

This research project is being conducted to satisfy part-requirement for a Bachelor of Arts, Psychology (Honours) degree at Edith Cowan University, Joondalup, Perth, W.A.

ALL INFORMATION GIVEN IN THIS QUESTIONNAIRE WILL BE TREATED CONFIDENTIALLY. ANY POTENTIALLY IDENTIFYING INFORMATION GIVEN WILL REMAIN CONFIDENTIAL.

Whilst we appreciate your assistance, you are under no obligation to complete the questionnaire, and you have the right to withdraw from the study at any time. Many of the sections were developed as part of a Yale University study of jobs and how people react to them. The questionnaire helps to determine how jobs can be better designed, by obtaining information about how people react to different kinds of jobs.

You are asked to *comment on your current job*. In addition, some sections also ask you to *imagine your ideal or desired job*, and to *respond as though you are in your ideal job*.

Other sections include:

- *questions about your health;*
- *your feelings about your home and your ideal home, length of residence, number of residents*
- *other work related questions, including education, length of time in job, sick leave, regular work hours etc.*
- *demographics, i.e., gender, age, postcode etc.*

THERE ARE NO TRICK QUESTIONS.

Please follow the instructions carefully and PLEASE TRY TO ANSWER ALL THE QUESTIONS.
YOU WILL HAVE TWO WEEKS TO COMPLETE THE QUESTIONNAIRE BEFORE IT IS COLLECTED BY THE RESEARCHER.
PLEASE SEAL THE QUESTIONNAIRE IN THE ENVELOPE PROVIDED.

Should you have any queries about the questionnaire or the research project, please contact the research student on (08) 9448 8684, or my Supervisor Dr. Mark Groves, School of Human & Biomedical Sciences, University of Canberra, ACT, on (06)201 5111. Email groves@canberra.edu.au.

Thank you for your time and co-operation.

Sharon Elsley
Honours Student
School of Psychology
Edith Cowan University
Email trxxkx@echidna.stu.cowan.edu.au

✂-----

If you agree to participate in this project, it is a University requirement that your signature is recorded below. I freely agree to participate in this study and I have been given a copy of this letter. I agree that the research data gathered for this study may be published, provided that I am not identifiable.

Signature.....Date...../...../...

Appendix L

Correlation Matrix for Person-Job Fit Model - Office Workers


```

1 100
2 -3 100
3 -6 -9 100
4 -19 -27 -60 100
5 -2 -3 -6 -19 100
6 -9 -6 -10 2 -28 100
7 =6 =13 4 =6 16 20 100
8 -11 12 -1 -9 22 -10 -2 100
9 6 7 -19 -3 10 17 -16 19 100
10 -6 -7 8 -11 15 -11 -7 53 38 100
11 16 12 -22 4 16 -25 -22 19 24 8 100
12 13 15 -15 -3 13 -13 -22 14 33 13 61 100
13 6 22 -10 -8 16 -17 -16 14 30 -13 54 55 100
14 -15 -10 4 8 1 2 -15 4 17 21 -2 3 -14 100
15 -3 -4 -1 -7 16 -15 -1 2 -10 -4 -5 9 3 10 100
16 6 12 3 =12 6 =1 21 1 =1 6 =5 4 =9 9 7 100
17 -8 -8 -8 12 -4 -4 0 7 4 12 -5 -8 -3 -10 -7 -12 100
18 35 20 =6 =16 -1 -1 8 10 1 13 10 11 1 -22 -9 1 22 100
19 -9 16 -10 4 4 0 -6 3 11 12 11 17 20 -17 -17 -4 50 33
100
20 -8 5 -15 13 10 -14 -3 14 3 8 11 4 15 -19 -2 -9 38 24
48 100
21 12 -5 7 -12 3 6 -20 -1 11 11 0 4 4 -14 -9 -3 32 10
21 18 100
22 1 -13 -20 19 -7 8 -12 1 5 1 -2 17 9 -22 -7 -9 26 15
20 26 36 100
23 -3 -8 -26 13 -3 9 8 -7 5 -4 -2 7 -3 -13 -14 7 34 16
32 34 37 25 100
24 3 -11 -13 9 3 0 4 -5 1 11 2 4 4 -11 -12 6 23 20
37 27 17 15 29 100
25 -9 -9 -6 0 3 40 -6 5 17 -5 -2 -7 -1 -10 12 -11 -20 -7 -
4 -1 -8 -5 -9 -3 100
26 -2 17 9 -15 1 4 50 -21 -27 -40 -10 -15 8 -13 8 11 -16 3
4 6 -26 -11 -8 -10 9 100
27 11 2 -8 -10 13 1 9 13 20 2 2 3 2 25 10 9 -12 -1 -
9 0 -7 -7 2 -24 7 12 100
28 =5 7 =14 =6 14 12 2 15 51 2 23 18 19 12 17 =1 =8 =1 =
6 7 -3 -1 8 -15 37 3 39 100
29 0 =13 =6 =2 0 24 =32 28 46 46 =9 0 =17 =4 =3 =13 9 8
6 4 14 20 0 3 36 -57 -2 16 100
30 2 -8 -2 3 -4 7 -15 -10 -4 -34 31 15 13 20 1 0 -15 -17 -
17 -24 -9 -26 -7 -8 7 -3 24 18 -25 100
31 16 -8 2 0 -7 6 10 -32 1 -27 2 21 12 19 -3 8 -12 -6 -
16 -19 -19 -6 8 -11 -7 27 40 5 -24 45
32 -15 6 -10 -7 2 27 10 -16 -14 -46 1 -1 11 -10 7 -4 -28 -12 -
3 5 -14 -5 1 -5 32 32 6 27 -6 33
33 -6 -8 -11 22 -6 4 -17 1 10 8 14 14 3 57 2 -4 -6 -11
0 =11 =14 2 =11 =13 =4 =7 =1 1 1 20
34 15 1 17 -15 15 -20 -6 14 -3 6 7 10 14 -15 34 -12 -6 5 -
7 -6 18 -10 2 =6 =6 -9 -9 -8 4 -14
35 -11 10 6 -6 -11 2 1 -19 -21 -25 -9 -8 -5 -1 -12 -20 -21 -6 -
25 -26 -14 -3 -15 -13 12 18 11 5 -21 12
36 9 4 1 -4 -10 2 -17 -10 -9 -11 4 10 4 -8 19 -4 -2 4 -
11 -14 11 -1 -2 -10 -7 -15 -25 -4 -9 3
37 10 5 -7 -2 -26 12 -6 -8 12 -1 0 -2 -8 3 -30 14 -12 -2 -
9 5 -9 3 1 7 10 1 12 19 10 11
38 8 5 -8 -2 -8 12 7 -1 6 -2 3 -2 -11 -4 -11 5 -1 6 -
1 11 -9 -8 5 15 11 0 4 17 10 10
39 7 =1 =12 =2 8 2 26 =28 =4 =38 25 6 13 7 6 5 =21 =6 =
13 -17 -22 -19 -6 -5 11 34 38 16 -37 46
40 5 6 =8 =5 9 4 8 =3 2 =32 26 19 26 20 5 -1 =25 =8 =
9 -15 -15 -25 -7 -17 15 30 58 29 -35 65
41 5 5 -20 -1 17 0 3 -2 26 -7 8 -4 11 15 0 -1 -28 -16 -
10 3 -6 -16 4 -22 27 16 55 50 -11 16
42 -5 -14 -3 13 -14 -2 -18 -18 -1 -3 -13 -5 -6 15 12 -4 -8 -24 -
26 -5 5 3 -10 -26 -1 -17 3 -6 9 -10
43 11 -10 4 -9 -1 9 -4 -7 13 9 12 24 2 16 -1 10 -9 -8 -
9 -18 5 -12 2 -21 2 -22 8 12 12 11
44 7 -5 -7 1 2 3 -8 8 5 -10 11 4 0 7 14 -13 -7 -11 -
10 =3 5 9 0 =18 =1 =8 35 15 1 12
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
19 20 21 22 23 24 25 26 27 28 29 30

```

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=====
010E 2 *   R   .. Correlation matrix
```

```
2=====
31 100
32 28 100
33 9 -2 100
34 -8 -9 -6 100
35 12 14 1 -14 100
36 -7 3 -2 20 -5 100
37 4 11 8 -66 23 -19 100
38 -2 9 4 -48 11 -15 68 100
39 44 34 7 -13 19 -9 11 5 100
40 55 39 6 -6 26 -17 3 -6 67 100
41 17 25 -1 -10 17 -6 14 4 28 52 100
42 -3 -1 13 4 5 32 -1 -18 -6 -17 1 100
43 14 6 23 -6 -2 14 10 6 4 2 -1 18 100
44 11 8 -1 10 6 13 -6 -10 26 32 17 10 6 100
-----
31 32 33 34 35 36 37 38 39 40 41 42 43 44
=====
```

Appendices L (1)

Correlation number and corresponding item name

1. Year 10
2. Year 12
3. TAFE
4. Undergraduate degree
5. Postgraduate degree
6. Desired Feedback from agents/supervisors
7. Desired satisfaction dealing with others
8. Desired experienced meaning of work
9. Desired experienced responsibility of work
10. Desired knowledge of results
11. Desired job security
12. Desired pay satisfaction
13. Desired satisfaction with supervision
14. Desired independence
15. Desired Detachment
16. Desired co-worker relationships
17. Attachment - MoH
18. Continuity - MoH
19. Identity - MoH
20. Cultural Context - MoH
21. Expression - MoH
22. Privacy - MoH
23. Social Regulation - MoH
24. Change - MoH
25. Current Feedback from agents/supervisors
26. Current satisfaction dealing with others
27. Current experienced meaning of work
28. Current experienced responsibility of work
29. Current knowledge of results
30. Current job security
31. Current pay satisfaction
32. Current satisfaction with supervision
33. Current independence
34. Current Detachment
35. Current co-worker relationships
36. Workload
37. Regular Work Hours
38. Overtime
39. Growth satisfaction
40. General satisfaction
41. Internal work motivation
42. Psychological and physical health
43. Absenteeism
44. Turnover

Appendix M

Correlation Matrix for Person-Job Fit Model - Teleworkers

[illegible]

=====

010E 2 * R .. Correlation matrix

2=====

31	100													
32	51	100												
33	15	3	100											
34	-1	13	-1	100										
35	11	12	-6	-12	100									
36	-1	8	1	37	0	100								
37	2	-9	9	-70	9	-44	100							
38	1	1	-14	-46	5	-29	45	100						
39	21	16	7	0	9	-7	12	15	100					
40	30	40	11	0	14	-8	1	11	37	100				
41	37	30	11	-16	22	-16	20	23	30	57	100			
42	6	3	21	5	-4	15	3	-9	16	11	-4	100		
43	-7	-3	24	24	0	31	-29	-1	4	-10	-3	13	100	
44	14	-3	14	0	5	9	3	3	-1	-15	-1	-3	19	100

31	32	33	34	35	36	37	38	39	40	41	42	43	44
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Appendix N

Correlation Matrix for Extended Person-Job Fit Model - Office Workers

[illegible]

<hr/>															
31	100														
32	28	100													
33	9	-2	100												
34	-8	-9	-6	100											
35	12	14	1	-14	100										
36	-7	3	-2	20	-5	100									
37	4	11	8	-66	23	-19	100								
38	-2	9	4	-48	11	-15	68	100							
39	44	34	7	-13	19	-9	11	5	100						
40	55	39	6	-6	26	-17	3	-6	67	100					
41	17	25	-1	-10	17	-6	14	4	28	52	100				
42	-3	-1	13	4	5	32	-1	-18	-6	-17	1	100			
43	14	6	23	-6	-2	14	10	6	4	2	-1	18	100		
44	11	8	-1	10	6	13	-6	-10	26	32	17	10	6	100	
<hr/>															
	31	32	33	34	35	36	37	38	39	40	41	42	43	44	
<hr/>															

Appendix O

Correlation Matrix for Extended Person-Job Fit Model - Teleworkers

=====

010E 2 * R .. Correlation matrix

2=====

31	100													
32	28	100												
33	9	-2	100											
34	-8	-9	-6	100										
35	12	14	1	-14	100									
36	-7	3	-2	20	-5	100								
37	4	11	8	-66	23	-19	100							
38	-2	9	4	-48	11	-15	68	100						
39	44	34	7	-13	19	-9	11	5	100					
40	55	39	6	=6	26	=17	3	=6	67	100				
41	17	25	-1	-10	17	-6	14	4	28	52	100			
42	-3	-1	13	4	5	32	-1	-18	-6	-17	1	100		
43	14	6	23	-6	-2	14	10	6	4	2	-1	18	100	
44	11	8	-1	10	6	13	-6	-10	26	32	17	10	6	100

31	32	33	34	35	36	37	38	39	40	41	42	43	44
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