The Effects of Trainee Characteristics and Work Climate on Transfer of Training

A Thesis Proposal for
Degree of Doctor of Business Administration
University of Western Australia
Perth, Western Australia

Name : XXXXXXXX
Student No : XXXXX
Supervisor : XXXXXXX
Abstract

Many organisations use training as a strategy to improve individual and organisational performance but with little focus on transfer of training. They do not realise that unless employees apply their skills and knowledge learned in the classroom to the workplace, improved performance would not happen. This study examines the effects of trainee characteristics and moderating effects of work climate on training transfer. It also examines the interrelationship between learning and behavioral change. A post-training test will be administered to the trainees to collect information on trainees’ learning and retention of skills and knowledge at least three months after the training intervention. Data will also be collected from the trainees and their supervisors to evaluate the trainees’ transfer behaviours on the job. It is expected that trainee characteristics will influence employees’ application of skills and knowledge learned in the classroom on the workplace. Application of skills and knowledge learned on the workplace is moderated by the effect of transfer climate in the organisation. A positive correlation is expected between the trainee’s learning and retention of skills and knowledge and trainee’s behaviour change. Data will be analysed using hierarchical regression analysis. As data is collected from one organisation, external validity is the key limitation. The results obtained may not apply to other organisations. Nevertheless, this proposed research should provide significant insights into which area of the trainee characteristics and work climate an organisation can focus so as to improve a trainee’s retention of learning and application of skills. This is important because only when the human performance is maximised can an organization gain strategic advantage over their competitors.
TABLE OF CONTENT

Abstract

1. Introduction ........................................................................................................................................5
   1.1 Statement of the Problem .............................................................................................................6
   1.2 Objective of Proposed Research .................................................................................................7
   1.3 Thesis of the Thesis ......................................................................................................................7
   1.4 Significance of Study ...................................................................................................................7

2. Background .......................................................................................................................................8
   2.1 Transfer of Training ....................................................................................................................8
   2.2 Trainee Characteristics ...............................................................................................................8
   2.3 Transfer Climate ........................................................................................................................10
   2.4 Learning and Behaviour Change ..............................................................................................12
   2.5 Proposed Research Model .........................................................................................................13

3 Methodology
   3.1 Target Population .....................................................................................................................15
   3.2 Design and Procedures ..............................................................................................................15
   3.3 Measures ....................................................................................................................................16
   3.4 Data Analysis ............................................................................................................................17

4 Discussion
   4.1 Expected Findings ......................................................................................................................18
   4.2 Timeline .....................................................................................................................................18
   4.3 Resources Required ....................................................................................................................19
   4.4 Ethical Considerations ...............................................................................................................19
   4.5 Possible Problems and Solutions .............................................................................................20
   4.6 Limitations of Study ....................................................................................................................20
5. Synthesis

References

Appendix A  -  List of Scholars
Appendix B  -  Confidentiality and Intellectual Property
The Effects of Trainee Characteristic and Work Climate on Transfer of Training

1. Introduction

Over the last 30 years, the socio-cultural, technological, economic, and political pressures have all combined to force modern organisations to take a closer look at their human capital in general, and training in particular (Thayer 1997). A significant purpose of training and development is to improve performance (Swanson 1995). Learning acquired in training is related to transfer behaviours which in turn leads to job performance (Rouiller & Goldstein 1993). More than ever, organizations are relying on workplace learning and continuous improvement in order to remain competitive. They have shifted their views about training from a separate stand-alone event to a fully integrated component of the company (Salas & Cannon-Bowers 2001).

Scholars and professionals alike indicate that the major benefit of training is the immediate improvement in performance or the transfer of learned knowledge and skills to the workplace (Schmidt & Bjork 1992). Training outputs should emphasise performance, not just learning (Yamnill & McLean 2001). Learning is of little value to organisations unless it is transferred in some way to performance (Holton, Bates, Seyler & Carvalho 1997). The effectiveness of training is ultimately measured by a trainee’s application and results obtained from work, not just from learning alone. For training to truly makes a difference to organizational and individual performance, we must understand how to support transfer of training in organizations (Yamnill & McLean 2001). For HR professional to support and ensure successful transfer of training, organizations must understand the various influences and reinforcers affecting trainees in their training processes – from situations prior to the training to the acquisition of knowledge, skills and attitudes during the training and then, to the retention and maintainance of knowledge, skills and attitudes after the training. It is important that HR professionals identify these barriers and find ways to enhance training transfer to obtain returns from training investment.
1.1 Statement of the Problem

Organisations are struggling to manage their most valuable resource, the competence and knowledge of their employees (Broad 1997). It is believed that success over time is dependent on the quality of the workforce and in developing their employees’ competencies to create and sustain a competitive advantage. Unlike technology and financial resources, core competencies represent skills and capabilities that are extremely difficult for competitors to acquire or develop quickly (Monasco 2003). Therefore each year, companies are spending thousands of dollars on employees’ training classes and development courses in the hope of increasing employees’ competencies and knowledge. Unfortunately, only about 10 percent of learning is transferred to job performance (Georgenson 1982) and most reports suggest that a substantial part of the organisations’ investment in human resource development is wasted due to poor learning transfer (Holton & Baldwin 2000). Learners usually lack time and motivation to think through how and where to apply the training, and the pressure to be productive forces them back into their habitual ways of behaviour (Foxon 1994).

Too much focus was on the process of training and gaining competency during training with little attention paid to the issue of training transfer or on the effectiveness of training. This “transfer” is often assumed by many educators as both a possible and a probable outcome of their training efforts (Hall 1994). There is little evidence in the research or anecdotal training literature that training programs transfer to the job and result in changed behaviours in the workplace (Foxon 1993). Most learning acquired in formal training is not carried over and applied when the employee returns to the workplace (Baldwin & Ford 1988). So far, no one person or group of people have accepted accountability for ensuring that skills taught will be used on the job (Broad & Newstrom 1992). This ‘transfer problem’ is indeed serious and expensive for many organisations. Unsettling questions continue to be raised about the return on this investment (Yamnill & McLean 2001), making it obligatory on Human Resource professionals to monitor the returns on training investment.
1.2 Objective of Proposed Research
The objective of the research is to examine the effects of trainee characteristics and moderating effects of transfer climate on transfer of training.

1.3 Thesis of the Thesis
Trainee characteristics and transfer climate influence the application of skills and knowledge.

1.4 Significance of Study
Many organisational leaders have increasingly recognised that the future success of their organisations depend on the people’s learning speed and their transfer of new ideas and information (Holton & Baldwin 2000). Transfer of training is a core issue linking individual change to the requirements of the organizational system (Yaminill & McLean 2001). It is not only necessary in traditional sense of practicing what is learnt in the classroom to the job, but it is now also required that employees be adaptive to novel situations (Haskell 1998).

The effectiveness of a training program is ultimately measured by whether trainees apply what they have learned in training to the job environment, not just by whether trainees learned the knowledge and skills taught (Kirkpatrick 1994). As all organisations have limited resources, time and money spent on training must yield satisfactory returns on investment. To have returns, training programs have to produce tangible performance outcome (Lewis 1996). Gaining a degree of competence matters only if the competence translates to improved job performance (Garavaglia 1993). Evaluating transfer of training becomes very important as it indicates whether improvements in the participant job-related knowledge and skills have resulted in improved job performance (Machin & Fogarty 1997). Therefore it is important for organizations to ensure effective trainings and effective applications of knowledge, skills and attitudes learned from the trainings onto the job to increase organizational effectiveness. The elimination of transfer barriers will also dramatically increase organizational support for future human resource
development. In other words, for Human Resource to increase their value and play a more important role in any organization, this “transfer“ issue must be resolved.

2. **Background**

2.1 **Transfer of Training**
Transfer of training is ‘the extent to which knowledge, skill and attitude acquired in a training program are applied, generalized, and maintained over some time in a job environment‘ (Baldwin & Ford 1988, p. 63). Most would agree that improving learning transfer systems requires an ability to diagnose accurately the factors inhibiting transfer. From the existing literature, work environment and trainee characteristics are two of the three constructs commonly identified as influencing ‘transfer of training’ in addition to training design.

2.2 **Trainee Characteristics**
Worker characteristics can influence behaviour in the workplace and thus affect the transfer of training (Xiao 1996). Influence of trainees’ attributes and attitudes on effectiveness of training have been a relatively neglected concern (Noe 1986) yet it account for 21% of the inhibiting factors to transfer (Foxon 1993). So far, trainee characteristics such as self-efficacy (Gist, Bavetta & Stevens 1990; Noe 1986), career attitudes (Facteau, Dobbins, Russel, Ladd & Kudisch 1995; Noe 1986; Noe & Schmitt 1986), job involvement (Noe 1986, Noe & Schmitt, 1986), have been identified by past researchers as some key influences in transfer behaviours.

Self-efficacy plays an important role in behaviour change (Gist & Mitchell 1992). A trainee’s self-perception of himself or herself as an effective individual influences the choice of whether to engage in a task, the effort expended in performing it, and the persistence shown in accomplishing it (Bandura, 1977). When one perceives that he has the capabilities to perform a task, it will increase the likelihood that the task will be completed successfully (Bandura, 1977). This strong sense of personal efficacy is related to better health, better social integration and higher achievement (Schwarzer, 1992).
Since perceived self-efficacy represents an optimistic sense of personal competence that accounts for motivation and accomplishments (Scholz, Gutierrez-Dona, Sud & Schwarzer 2002), it is likely that trainees with higher self-efficacy will have higher motivation to learn. Eden and Ravid (1982) in their research supported that higher self-expectancies lead to higher training performances because trainees with higher self-expectancies have higher motivation to learn.

Trainees’ involvement in their jobs and careers were found to be important antecedents of learning and behaviour change (Noe & Schmitt 1986). Individuals who are highly involved with their jobs are more likely to be motivated to learn new skills because participation in training activities can increase levels of skills, improve job performance and elevate feelings of self-worth (Noe 1986). Thus, a trainee’s learning and transfer behaviour could be influenced by the extent of his job involvement – the degree to which the individual identifies himself with the work or the importance of the work.

Career motivation is an important predictor of continuous learning (London & Noe 1986). The concept of career awareness and knowledge about one’s career situation can be an important part of learning and is related to development activity (Maurer and Tarulli 1994; Noe & Wilk 1991). To have career awareness means having the career insight. Career insight refers to one’s ability to be realistic about oneself and one’s career and to put these perceptions to use in establishing goals (London & Noe 1986). Therefore it is expected that if one is high in career insights, he/ she will apply skills and knowledge learned into their work to achieve their career goals. Career exploration is therefore believed to provide career motivation to which could be related to transfer behaviours. Career motivation was much investigated with personality characteristics, responses to changes, job commitment, rewards and personal development (London & Noe 1997) but lesser studied in the past with performance outcome and transfer of training directly.

Since career planning was found to be an important prerequisite for improvement in actual on-the–job behaviour as a result of participation in the training program (Noe & Schmitt 1986), career motivation should therefore be positively related to positive outcome on work. It is therefore believed that if an individual who is high in career
motivation, he/she is likely to seek control over his career and therefore will also seek control over his learning and seek to improve his performance on the job.

2.3 Transfer Climate
Organisational climate is an important factor affecting the managers' efforts in applying new knowledge in the workplace (Baumgartel & Jeanpierre 1972). Since then, exploration has been made in concepts such as environmental favourability (Noe 1986) and transfer climate (Rouiller & Goldstein 1993). Transfer climate refers to those perceptions describing work environment characteristics that may facilitate or inhibit the use of trained skills including supervisors’ influence, the nature of employee attitudes toward training and the extent of formal training policies and practices that exist to support training initiatives (Burke & Baldwin 1999).

A vital component in organisational learning is the development of a positive learning climate, which stimulates and enhances individual learning (Mcdougall & Beattie 1998). Training literatures stress that positive transfer of training is highly contingent on factors in the trainee’s work environment (Rouiller & Goldstein 1993). Work environment is a critical aspect in determining whether trainees apply skills on the job (Burke & Baldwin 1999) and therefore can influence worker ability and opportunity to perform learned behaviour on the job (Baldwin & Ford 1988).

Social support and situational constraints are two aspects of work environment that influence employees’ attitudes and participation in development activities (Noe & Wilk 1993). Trainees’ perception of the trainees of the environmental favourability and what he/she expects to encounter in the work setting that influences motivation to transfer. Prior knowledge of the transfer climate into which trainees would return could influence trainees’ motivation to use training and thus their transfer behaviour (Seyler, Holton, Bates, Burnett & Carvalho 1998). A favourable environment would be one where supervisors support training, eliminate barriers to transfer and promote an organisational transfer climate that encourages individuals to implement new skills and knowledge (Clark, Dobbins & Ladd 1993). When Ford, Quinones, Sego and Sorra (1992)
investigated on training transfer, they found supervisory support is one critical factor impacting the opportunities trainees received to perform trained tasks on the job. Trainees returning to a supportive work environment appear to use their training skills more often (Baumgartel, Reynolds & Pathan 1984). On the contrary, supervisors can also have a negative impact on the transfer process through supervisor sanctions, where application of training on the job is actually discouraged. In a study conducted by Newstrom (1986) where nine major barriers of transfer were identified, ‘management support’ is the number one impediment to transfer. When managers believe in the value of training, they are more likely to apply the skills learned in the training (Baumgartel et al. 1984). Xiao (1996) in his study on training transfer in the electronics industry in Shenzhen found that ‘supervision’ is the most influential among all the organisational variables in the transfer process. However, while some researchers found supervisory support to be most important, Facteau, et al. (1995) found that supervisory support is negatively related to transfer.

According to Facteau et al. (1995), subordinates and peer support were positively related to perceived transfer and not supervisory support. Peer support is one factor that can enhance or inhibit training transfer (Noe 1986; Seyler 1997; Taylor 2000). Co-ordinated group interaction tends to direct the transfer of training to a determined objective and thus improve productivity (Xiao 1996), but discouraging remarks from peers can impede a trainee’s motivation. A supportive training environment is important because it is the first place where the trainees first learn whether they will have their colleagues and trainers’ support, or not. (Kaur 2003).

If a supervisor’s perception of the trainee’s capability, skill and likability is unfavourable, it is one negative factor impacting the trainee’s opportunity to perform trained tasks on the job context (Ford et al. 1992). It includes active efforts of trainees to obtain work experiences relevant to the tasks for which they were trained (Ford et al. 1992). Practising skills immediately upon return to the job can have a major impact on skill retention (Tannenbaum & Yukl 1992). The more opportunities trainees have to use and rehearse skills emphasised in training on the job, the greater the probability these skills
will be maintained (Noe 1986). Therefore significant differences do exist between trainees who have opportunity to perform and those trainees who have limited opportunity. Supervisors and peers support were related to the extent to which trainees had opportunity to perform trained tasks (Ford et al 1992).

Employees who have inadequate resources and insufficient support from the work environment experience frustration and become dissatisfied with the job (Peter & O’Connor 1980). Therefore one would expect that the more unsupportive the transfer climate, the lower the motivation of the employees and the more negative is the employees’ attitudes towards learning and behaviour change. These unfavourable attitudes will result in lower levels of application of skills and knowledge on the job.

2.4 Learning and Behaviour Change
Learning is the first level of the Kirkpatrick’s four level criteria framework of training evaluation. The Kirkpatrick’s model comprises of four hierarchical level of training outcomes (a) trainees’ reactions to the program, (b) learning (knowledge and skills acquired), (c) behaviour change and (d) results (performance outcome).

Trainees’ evaluation to training had contradicting evidence in past research behaviours. Learning and behaviour change are the second and third level of measurement in training evaluation largely used by researchers in measuring training effectiveness. Evaluation of training is one of the most critical issues faced by human resource development practitioners today (Holton 1996). To maximise the payoffs from training investment, organizations must plan, implement, and evaluate their training effectively (Tannenbaum & Woods 1992). A multi-level approach to evaluation suggests that ‘evaluation should be broad-based, consider the needs of multiple stakeholders, and use the most appropriate and objective information to make judgments about training investments and efforts’ (Burrow & Berardinelli 2003).

Evaluation at second level is typically undertaken after the training to measure the amount of learning achieved by a trainee. To deepen the study of learning processes as a
result of the learning experience, it is often desirable to examine the change in score, before training and after training (Warr et al. 1999). Pre and post trainings are commonly used to evaluate the effectiveness of training. In many settings, organizations are only concerned to find out the extent to which the trainees have reached target standards of competence, rather than being interested in the amount of learning (Sackett & Mullen 1993). As this study aims to find out the amount of learning acquired and retained by the trainees, only a post-test will be administered to the trainees. Additional measures on behaviour change should be collected from supervisors as this will greatly increase the assessment of training effectiveness (Facteau et al. 1995).

The interrelationships among learning, behaviour and performance criteria received mixed support. Learning had no impact on behaviour change but was significantly related to performance improvement (Noe & Schmitt 1986). However, favourable outcomes at the lowest level are posited to be necessary for favourable outcomes to occur at the next level (Alliger & Janak 1989). Individuals who learned more during the training programs were more likely to exhibit the trained skills on the job (Noe & Ford 1992). Motivation to transfer was found to be influenced by learning gained (Huczynski & Lewis 1980). Therefore, one would expect that a positive correlation to exist between learning and behaviour change.

2.5 Proposed Research Model
Transfer of training literature have consistently pointed to the importance of trainee characteristics and work climate factors in promoting the transfer of newly acquired skills onto the job. This study examines the effects of trainee characteristics and moderating effects of transfer climate on training transfer. It also examines the relationship between the learning and behavioral change.
From the proposed model, trainee characteristics and work climate influence a trainee’s transfer behaviours. Based on the above model, the following hypotheses will be tested:

H1 : Trainees characteristics directly affect learning and retention of skills and knowledge.

H1a : Trainees with high self-efficacy will be likely to have higher level of learning and retention.

H1b : Trainees with high job involvement will be likely to have higher level of learning and retention.

H1c : Trainees with high career exploration and motivation will be likely to have higher level of learning and retention.

H2 : Work climate will moderate the relationship between learning and application of skills and knowledge (transfer behaviours).

H2a : A more positive supervisor support will strengthen the relationship between learning and transfer behaviours.
H2b : A more positive peer peer support will strengthen the relationship between learning and transfer behaviours.

H3 : Trainees high in learning will be likely to apply skills and knowledge learned onto the job (transfer behaviours).

3. Methodology

3.1 Target Population
The target population shall be about 200 employees from a multi-national company in Singapore. The target population is given a training intervention to increase their overall effectiveness – personal effectiveness, job effectiveness and team effectiveness. They are employees across various functions in the organization.

3.2 Design and Procedures
The study shall measure the various relationship between the variables through the use of a post-training test and two questionnaires. The post-test and a questionnaire will be administered to the trainees and the second questionnaire will be administered to the trainees’ supervisors. Most of the questions in the questionnaire shall be made on a Likert scale using measures developed by past researchers. A behaviourally anchored rating scale has relatively higher reliability between raters and can be used to assess the extent to which behaviour change has occurred at least three months following the training intervention. A cross sectional survey of trainees who have been trained as well as those who will be trained will be conducted at the two timelines as follows:

a. The first questionnaire will be administered to all trainees who have attended the “effectiveness” training. This questionnaire aims to collect demographic data (such as age, education level, years of service and gender), self-efficacy in generalizing and maintaining skills on the job, job involvement, career motivation, training retention of learning, perception of supervisor’s support and
peer support inhibiting their transfer of skills and the degree to which they have applied skills and knowledge onto the job.

b. The second questionnaire will be administered to the trainees’ supervisors to evaluate trainees’ degree of behavioural change after the training intervention.

3.3 Measures
To test the following hypothesis, the following measures will be used for the variables:-

a. Trainee Characteristics
   - Demographic data (age, years of experience, qualification level, gender)
   - Self-efficacy is defined as the employee’s belief that he or she could perform a learning task (Bandura 1977). The measurement of self-efficacy in transferring skills on the job will be measured using scales developed by Machin and Forgarty 1997.
   - Career exploration and motivation refers to trainee’s career resilience, identity and career planning and this measurement is a 12-item scale developed by Carson and Bedeian (1994). The resilience measure focuses on the perceived value of putting effort into the job, whereas the identity and career planning scales are attitudinal and behavioral.
   - Job Involvement is defined as the degree to which a person identifies with his or her work. This be measured using scales developed by Lodahl and Kejner (1965).

b. Work Climate
   - Supervisor support is measured using transfer climate scale developed by Seyler et al. (1998). Supervisor support is one factor of the organisational climate identified in which training will be utilized.
   - Peer support is measured using the 7-item scale developed by Seyler et al. (1998). Peer support is another factor of the organisational climate commonly identified as affecting trainee learning and retention of skills.

c. Learning – measured through the use of a post-training test to assess the amount of learning acquired and retained by trainees, at least three months after the
training. The purpose of the learning experience, according to Mayer (1984) is for the trainee to gain skills and knowledge and/or for there to be a change in attitudes and beliefs.

d. Transfer behaviours – use of a questionnaire to measure the trainees’ overall effectiveness on the job.

3.4 Data Analysis

Collected data will be analysed using several statistical techniques. Frequency distributions and descriptive statistics will be used to profile the participants and their responses.

Bivariate correlation analysis and hierarchical multiple regression will be used to test the research hypotheses. Knowledge of the bivariate relationships between each of the independent variables and the dependent variable should help in the interpretation of the hierarchical regression results and give a broader picture of the various trainee characteristics that contributed to learning. Hypotheses 1a, 1b, 1c, 2a, 2b and 3 will be analysed using bivariate correlation analysis while hypothesis 1, 2 and 3 will be analysed using hierarchical multiple regression which partitioned the variance in which learning is accounted for. The multiple regression is used to predict a single dependent variable from one or more independent variables (Hair, Anderson, Tatham & Black 1998). The total variance accounted for each set of variables can be estimated by examining the $R^2$ series and the change in variance explained from one set to another (Cohen & Cohen 1983). When hierarchical regression is used as an exploratory method of examining relationships between variables, it also suggests the presence of mediated relationships between independent variables and the dependable variables. In this case, the moderated regression analysis examines the hypothesized interaction involving perceived climate and learning on transfer outcome. All analysis should be done using the SPSS version 11.5.
4. Discussion

4.1 Expected Findings

The expected findings are that trainee characteristics and positive climate are factors that will influence employees’ transfer (generalization and maintainance) of their skills and knowledge. A positive relationship is expected between the trainee’s learning and behaviour change. The strength between trainees learning and behaviour change is highly dependent on work environment influences. The more supportive the transfer climate, the more likely a positive correlation exists between learning and behaviour change and vice versa.

4.2 Timeline

The proposed timeline to complete the thesis is set forth as follows.

<table>
<thead>
<tr>
<th>Period</th>
<th>Activity Completed</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jun 2004 - Jul 2004</td>
<td>First draft of Chapter 1&lt;br&gt;Discussion with company on research design, prepare proposal for management approval</td>
<td>2 months</td>
</tr>
<tr>
<td>Aug 2004 –Mar 2005</td>
<td>Review of literature&lt;br&gt;Refine and expand Chapter 2&lt;br&gt;Questionnaire design and ethics approval&lt;br&gt;Administer questionnaire&lt;br&gt;Methodology Chapter 3 completed</td>
<td>8 months</td>
</tr>
<tr>
<td>Apr 2005 – Jun 2005</td>
<td>Analysis of Data</td>
<td>3 months</td>
</tr>
<tr>
<td>Jul 2005 – Aug 2005</td>
<td>Data Analysis Chapter 4 completed</td>
<td>2 months</td>
</tr>
<tr>
<td>Sept 2005</td>
<td>Introduction Chapter 1 completed&lt;br&gt;Conclusion</td>
<td>1 month</td>
</tr>
<tr>
<td>Oct 2005 – Dec 2005</td>
<td>Chapter Revisions completed</td>
<td>3 months</td>
</tr>
</tbody>
</table>
4.3 **Resources Required**

Resources required include:

a. About 200 participants from the company
b. Time to design the two questionnaires and the post-test
c. Time to look for scales from past researchers; and
d. Time to administer the questionnaires at different time lines.

4.4 **Ethical Considerations**

Ethical issues were considered in the design of this study. Due to the research design, there cannot be anonymity in data collection and identification of participants are required. However confidentiality of the respondents’ identity will be kept only to the researcher and the organisation will not have access to any individual responses. The researcher who is a third party to the organization and has no work relationship with the respondents is the only person who is able to identify individual responses. Each respondent will be allocated an identification number. Each respondent is identified by his/her identification number and therefore even if the company wants to have access to the raw data, confidentiality of identity is kept.

Secondly, participants will be advised that participation in the study is voluntary, and that the purpose of the research is to identify factors that can enhance the transfer of training to the workplace. It will be emphasised to trainees in the information sheet attached to the survey that the study is not concerned with assessing individual performance.

Both the two questionnaires will be administered by the researcher who is an external party to the organisation. As the external trainer is not an employee of the company, he/she will not have any influence or authority over the trainees. The probable contact between the researcher and the trainees and the supervisors is through the email with some probability over the phone.
4.5 Possible Problems and Solutions

The first possible problem is that since the questionnaires will not be anonymous, the response rate could be lower than expected, especially for the third questionnaire as it will only be administered three months after the training, to both the trainees and their supervisors. To increase the response rate, top management support for this study will be obtained and made known to the respondents. The researcher shall also explain the purpose of the research well to the respondents and sell them the benefits and importance of the survey to the organisation. Personnel from the organisation’s university will also be assisting the researcher in promoting the importance and benefit of the survey to the respondents.

Another possible problem is that though the training is an on-going one in the organisation, it is only held about once a month. Therefore to have adequate sample size from the second group of trainees, the data collection period from this group of trainees could be longer than expected - up to four to six months, depending on the number of trainees attending the training in each month. And including the three months post-training data collection, the whole data collection period could take up to nine months. In order to complete the research on time (by December 2005), the data collection phase of work shall be done concurrently with literature review, writing up of proposal and data analysis. While “waiting for the next batch of trainees”, other detailed work of the research shall also be carried out concurrently with the data collection phase. For example, some preliminary data analysis can be done immediately after the second questionnaire while waiting to administer the third questionnaire. The looking out for measures and the design of questionnaire shall be done before the writing up of the literature review and methodology chapter.

4.6 Limitations of Study

The external validity is one obvious limitation of this study. As data is collected from one company, the findings of the study may not generalise to other contexts. In addition, this study does not provide enough information about which input factors have the greatest impact on transfer under various types of organisation, culture, training
design and/or program. Though previous research has found that the organisational context influences trainees’ motivation, expectations, and attitudes for transfer, we still need comparative studies that actually manipulate the transfer climate in various degree to measure the impact precisely. To overcome this limitation, future research could involve a comparative study between organisations or a case study.

This study collect data on learning, and behaviour change. However, the study will not measure the first and fourth level of training effectiveness in Kirkpatrick’s hierarchical model, results or improved individual/organisational performance. Nevertheless, this study is expected to make a substantive contribution to the literature because few studies have investigated the factors that influence the transfer of training using behavioural change as the measure of the effectiveness of the training. Future study could investigate the fourth level of training outcome – the return on investment.

5. Synthesis

Profit figures do not mean much unless they are tied to the cost of loss in training investment. The difficulties in measuring effectiveness of training and transfer of training continue to serve as challenging problems to organisations and scholars. It is clearly naive to just ‘train and hope’. Transfer of training is certainly not a simple concept as it involves multidimensional measurements, from the amount of skills learned to behavioural change, to job performance and then to organisational performance. Most existing research assumes a simple linear relationship between the variables and is based solely on correlational studies in which causality can be inferred but not necessarily proven. Further, few studies have used multiple levels of Kirkpatrick’s effectiveness criteria to assess the effectiveness of the training program, basing their findings totally on self-report measures of training transfer and thereby failing to assess whether behavioural change has actually occurred. The relationship between the variables is actually very complex and should not be simplified. This proposed study examines various relationships between the variables and shall provide an insight into the factors contributing to training transfer.
Early, researchers investigating training transfer found that success in the early stage of training predicted transfer (Gordon & Cohen 1973). A supportive organisational transfer climate is therefore a critical component that should be examined as part of the needs-assessment process (Rouiller & Goldstein 1993). Therefore transfer must not only be an afterthought, but also a forethought, carefully considered and planned by organizations to aid the trainees. Unfortunately, previous research has focused only on post-training interventions in an attempt to facilitate transfer of training, rather than pre-training interventions. This proposed research aims to study motivation to transfer and effectiveness of training in three stages - pre, during and post-training, using three levels of outcomes to assess training effectiveness.

A number of researchers have advocated that transfer of training will only be successful if managers support and practise the same behaviours that their employees are taught in the training. This is certainly impractical and unrealistic because managers and employees seldom attend the same courses, due to the differences in their job level, cognitive ability, time schedule, work target, training and development plan. In other words, most managers do not know exactly what their employees are taught during training. Literature that cites ‘lack of follow up’ as a negating factor affecting training transfer seem ‘too ready’ to blame managers because in reality, most managers do not know what to follow up, making “lack of reinforcement of learning” one inhibiting factor in the transfer of training. To overcome this limitation, this proposed study is designed to allow both managers and employees to be trained together - so that they can practise the same behaviours learned during the training.

Lastly, transfer data that are usually collected are often self-reported measures (Facteau et al. 1995; Ford et al. 1992; Tesluk, Farr, Mathieu & Vance 1995; Xiao 1996), and collected immediately or within a very short period of time following the training (Brinkerhoff & Montesino 1995; Tziner, Haccoun & Kadish, 1991). Self-report measures may not be adequate to measure the effects on training transfer as they are measures of ‘intention’ or ‘motivation’ to transfer rather than the actual behavioural
change or results achieved. The data collected within a short period of time may also not be adequate to conclude concretely the degree of generalisation and maintenance of learned behaviour onto the job. The amount of transfer reported in research could be invalid as most training transfer is measured using a one-dimensional measure collected at one point in time, rather than multi-dimensional measures collected over several time periods. This proposed study is a three-month longitudinal study and hence, it is expected to make a major contribution to understanding the factors that influence training transfer.

The above considerations in the proposed research should provide significant insights into how HR professionals can continue to use training interventions as competitive tools to develop human capital and to gain a strategic advantage over their competitors.
References


Broad, M. L. 1997, Transferring Learning to the workplace: Seventeen case studies from the real world of training, American Society for Training and Development, Alexandria, VA.


Hall, W. 1994, *Competency-based training and assessment*: National Centre for Education Research, South Australia.


Appendix A

**List of Scholars**

Baldwin, T.T.  Associate professor and Geyer-Cain Faculty Fellow, Indiana University Kelley School of Business

Burke, L. A.  Assistant Professor, Louisiana State University

Fogarty, G.  Associate Professor and Head of Psychology Department in University of Southern Queensland

Ford, J. K  Michigan State University

Foxon, M  Florida State University

Holton III, E. F.  Associate Professor of Human Resource Development in Louisiana State University

Machin, M. A.  Senior Lecturer in Organisational Psychology at the University of Southern Queensland

Noe, R. A.  Assistant Professor of management in School of Business in University of Minnesota

Tannenbaum, S. I.  Associate Professor at State University of New York
Appendix B

Confidentiality and Intellectual Property

All confidentiality and intellectual property rights within this study will be done in accordance to the Guidelines on Research Conduct specified by the University of Western Australia, as well as by the Australia’s privacy laws.