

**Supervisor communication and motivation to learn as
a predictor of positive individual attitudes and behaviors:
A study in one city-based local authority**

Azman Ismail

Sofiah Bongogoh

Sheela Chitra Chandra Segaran

iazman@fcs.unimas.my

Faculty of Cognitive Sciences and Human Development
Universiti Malaysia Sarawak, Sarawak

Rabaah Tudin

trabaah@feb.unimas.my

Faculty of Economics and Business
Universiti Malaysia Sarawak

Mohd Na'eim Ajis

naeim@uum.edu.my

College of Law, Government and International Studies
Universiti Utara Malaysia

Wan Khairuzzaman Wan Ismail

m-wkhair@utm.my

International Business School
UTM International Campus

Abstract

Human resource development literature highlights that the ability of supervisor to use good communication styles in training programs may motivate positive individual attitudes and behaviors (i.e., transfer of competency and job performance). Further, a careful observation of such relationships reveals that the effect of supervisor communication on individual attitudes and behaviors is indirectly affected by motivation to learn. The nature of this relationship is less emphasized in past research studies. Therefore, this study was conducted to gather data from 100 technical employees in one city-based local authority in East Malaysia (EMCBLAAUTHORITY). Outcomes of stepwise regression analysis showed that relationship between motivation to learn and supervisor communication had been an important predictor of transfer of competency and job performance. This result confirms that motivation to learn does act as a full mediating role in the training model of the organizational sample. In addition, implications and limitations of the study, as well as directions of future research are discussed.

Keywords: *Supervisor communication, motivation to learn, individual attitudes and behaviors*

Introduction

Training program is often related to non-monetary and monetary returns such as turnover intention (Pollitt, 2007), return on investment (White, 2008), and customer satisfaction (Pollitt, 2007). Training is a planned, continuous effort by management to improve employee competency levels and organizational performance. It is designed to provide learners with the knowledge and skills needed for their present jobs (Mondy, et. al., 1999). In an organizational context, training program is viewed as a strategic human capital management function where it focuses on developing employee competencies to overcome daily problems that may support the development and growth of an organization in future (DeSimone, et. al., 2002). Supervisors are viewed as a critical organizational climate factor that affects the credibility of training programs (Blanchard and Thackers, 2007; Noe, 1986, 2005). As an experienced leader, problem solver and role model at the first level of organizational management (Adair, 1988; Elangovan and Karakowsky, 1999), supervisors are often involved in designing training programs, such as establishing objectives, selecting suitable trainers, developing lesson plans, selecting program methods and techniques, preparing materials, scheduling the program, as well as conducting training needs analysis (Adair, 1988; Nijman, 2004). Acton and Golden (2003) found that high training benefits are derived by employees of organizations who consult employees with respect to their training, target the training to specific business and job related objectives and carry out a post-training evaluation process. Rabey (2007) viewed that the supervisor cum trainer would then be more of a change agent, assisting with the diagnosis of the operational processes and then able to assist in the design, training and implementation of new procedures. Furthermore, a competent trainer must be a stimulator of learning and one who uses every situation to inspire thinking, who challenges the status quo (Rabey, 2007). In academic view, the role of supervisor can be seen in few aspects which are the style of supervisor, level of competency, attitude and characteristic towards their client and academic and intellectual capacity (Moses, 1994; Zubir Skerrit, 1994 and Zhao, 2003).

Many scholars advocate that well-designed training programs are important, but they may not achieve the training program objectives if supervisors do not properly practice good communication styles. For example, the ability of supervisors to openly deliver information about the procedures, content, tasks and objectives of the training program, conduct discussion about tasks that should be learned, give detailed explanations about the benefits of attending training programs and provide performance feedback is categorized under communication (Harris et. al., 2000; Sisson, 2001). As a result, it may lead to increased positive individual attitudes and behaviors especially transfer of competency (Tsai and Tai, 2003; Foxon, 1993) and job performance (Chiaburu and Takleab, 2005; Tsai and Tai, 2003). Transfer of competency is often defined as trainees effectively apply the knowledge, skills and abilities that they gain from a training program to the job environment (e.g., positive behavioral changes and performing job better) (Baldwin and Ford, 1988). Job performance is viewed as a function of the capacity to perform, the opportunity to perform, and the willingness to perform. The willingness to perform is referred as the degree to which individual employees' desire and will to put high effort in order to meet job performance requirements (Eysenck, 1998). Meanwhile, the capacity to perform relates to the extent to which an employee possesses task-relevant skills, abilities, knowledge, and experiences. The opportunity to perform is viewed as a critical element in the performance process. Thus, the combination of those elements may lead to a high employee performance (Bohlander et al., 2001).

Interestingly, a thorough review of training program literature reveals that effect of supervisor communication on individual attitudes and behaviors is indirectly influenced by motivation to learn (Tsai and Tai, 2003). Motivation to learn is often viewed as an employee's willingness to follow, involvement and commitment to learning activities in order to achieve certain

objectives (DeSimone *et al.*, 2002; Nijman, 2004). Within a training program framework, the ability of a supervisor to properly communicate the information about training programs will strongly motivate employees to learn latest knowledge, skills and positive attitudes. As a result, it may lead to increased transfer of competency and job performance (Foxon, 1993; Nijman, 2004). Although numerous studies have been done, little is known about the mediating role of motivation to learn in training program models. Hence, it motivates the researchers to measure the mediating effect of motivation to learn in the relationship between supervisor communication in training programs and individual attitudes and behaviours that occurs in EMCBLAAUTHORITY. For confidential reasons, the identity of this organization is kept anonymous.

Literature review and research hypothesis

The mediating role of motivation to learn in the training programs of EMCBLAAUTHORITY is consistent with the notion of human motivation theories, namely Adams' (1963, 1965) equity theory and Vrooms' (1964, 1973) expectancy theory. The equity theory states that unfair or fair treatment has a significant impact on individual attitudes and behaviors. Application of this theory in training management shows that employees who receive fair support from their supervisors while applying and attending training programs will perceive equity. If individuals feel that they are fairly treated by their supervisors, this will invoke motivation to learn, which in turn, leads to increased transfer of competency (Goldstein and Ford, 2002; Yamnill and McLean, 2001) and job performance (Chiaburu and Takleab, 2005; DeSimone *et al.*, 2003). Farr and Middlebrooks (1990) imposed the expectancy theory framework and suggested that the supervisor support will influence motivation of trainees because it positively impacts trainees' expectancies and instrumentalities. Therefore, those supervisors who provide support for their employees with discussion will lead them to success in training programme. On other hand, Vrooms' (1964, 1973) expectancy theory highlights that an individual will perform certain actions if he or she perceives such actions may bring valued outcomes. Application of this theory in training management shows that the ability of a supervisor to openly and honestly communicate the value of attending training programs and its importance of learning new competencies will strongly increase employees' motivation to learn. As a result, it may lead to increased transfer of competency (Nijman, 2004; Goldstein and Ford, 2002) and job performance (Elangovan and Karakowsky, 1999; Goldstein and Ford, 2002).

The literature has been used as a foundation of establishing a conceptual framework for this study as shown in Figure 1.

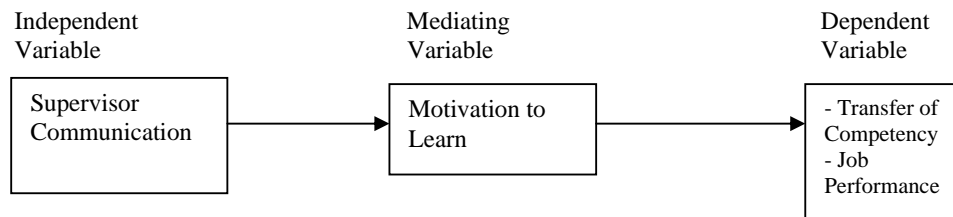


Figure 1: Motivation to learn mediates the relationship between supervisor communication in training programs and individual attitudes and behaviors

Based on the evidence, it seems reasonable to assume that the supervisor communication will affect EMCBLAUTHORITY employees' motivation to learn and that may increase their competencies and performance as this motivation does affect Western employees. Thus, motivation to learn theories further suggests that if EMCBLAUTHORITY employees perceive that their supervisors sufficiently practice good communication styles; this will invoke employees' motivation to learn. Thus, it may lead to greater transfer of competency and job performance. Therefore, we hypothesized that:

- H₁: Motivation to learn positively mediates the effect of supervisor communication on transfer of competency
- H₂: Motivation to learn positively mediates the effect of supervisor communication on job performance

Methodology

This study used a cross-sectional research design that allowed the researchers to integrate training management literature, the in-depth interview, the pilot study and the actual survey as a main procedure to gather data. The use of such methods may gather accurate and less biased data (Sekaran, 2000). At the initial stage of this study, in-depth interviews were conducted involving six experienced technical employees including technician, an assistant Human Resource Manager, a Head of the Training Unit, a supervisor and two senior officers of the Technical Department. A thorough investigation of the interview results showed that the motivation to learn has indirectly influenced the effect of the supervisor communication on job satisfaction and job performance in the organization. Information gathered from the interviews was used to develop the content of a pilot survey questionnaire. Next, a pilot study was done by discussing the survey questionnaires with the above participants. Their feedbacks were used to verify the content and format of survey questionnaires for an actual study.

The survey questionnaire was used as the main instrument. It consisted of 4 sections. Firstly, supervisor communication was measured using 4 items that was modified from transfer of training literature (Yamnill and McLean, 2001). Secondly, motivation to learn was measured using 7 items and it was modified from training program literature (Tsai and Tai, 2003; Rodríguez and Gregory, 2005;). Thirdly, transfer of competency was measured using 4 items that were also modified from transfer of training literature (Rodríguez and Gregory, 2005; Tsai and Tai, 2003). Finally, job performance was measured using 5 items that were modified from job performance literature (Huang, et al., 2004). All items used in the questionnaires were measured using a 7-item scale ranging from "strongly disagree" (1) to "strongly agree" (7). Demographic variables were used as a controlling variable because this study also focused on employees' attitudes. The back translation technique was used to translate the survey questionnaires in Malay and English; this may help to increase the validity and reliability of the instrument (Van Maanen, 1983).

The targeted population of this study was technical employees of the EMCBLAUTHORITY. In the studied organization, all technical employees are entitled to attend training programs conducted by the organization. Considering the organizational rule, a convenience sampling technique was used to distribute 150 questionnaires to technical employees through contact persons (e.g., secretary of department heads, assistant HR managers, supervisors and/or HR managers). Of the number, 100 usable questionnaires were returned to the researchers, yielding a response rate of 67 percent. The survey questionnaires were answered by participants voluntarily. The Statistical Package for Social Science (SPSS) version 14.0 was

used to analyse the psychometric properties of the questionnaire data and thus testing the research hypothesis.

Results

In terms of sample profile, Table 1 shows the majority respondent characteristics were male (92 percent), age between 30 to 39 years old (47 percent), technicians who held Malaysian Certificate of Education (45 percent), technicians who worked less than 5 years (33 percent) and group leader and supervisor positions (39 percent).

Table 1: Respondent characteristics (N=100)

Gender (%)	Age (%)	Education (%)	Length of Service (%)	Position (%)
Male = 92	20-29 = 27	Degree = 9	1-5 years = 33	Engineer/Planner = 7
Female = 8	30-39 = 47	Diploma/STPM = 20	6-10 years = 20	Leader/Supervisor = 39
	40-49 = 22	MCE/SPM = 45	11-15 years = 20	Technician = 21
	>49 = 4	LCE /SRP/PMR = 12	16-20 years = 25	Landscape/maintenance = 3
		Others = 14	> 20 years = 2	Architect = 7
				Others = 23

Note:

SRP/LCE/PMR: Sijil Rendah Pelajaran/Lower Certificate of Education/ Penilaian Menengah Rendah

SPM/MCE: Sijil Pelajaran Malaysia/ Malaysia Certificate of Education

STPM:Sijil Tinggi Pelajaran Malaysia

Table 2 shows the results of validity and reliability analyses for measurement scales. The factor analysis with direct oblmin rotation was done for five variables with 20 items. Next, the Kaiser-Mayer-Olkin Test (KMO), which is a measure of sampling adequacy, was conducted for each variable and the results indicated that it was acceptable. Specifically, the results of these statistical analyses showed that (1) all research variables exceeded the minimum standard of Kaiser-Meyer-Olkin's value of 0.6, were significant in Bartlett's test of sphericity, (2) all research variables had eigenvalues larger than 1, (3) the items for each research variable exceeded factor loadings of 0.40 (Hair, et. al., 1998), and (4) all research variables exceeded the acceptable standard of reliability analysis of 0.70 (Nunally and Bernstein, 1994). These statistical results confirmed the validity and reliability of measurement scales used for this study as shown in Table 2.

Table 2: Results of the validity and reliability analyses for measurement scales

Measure	Items	Factor Loading	KMO	Bartlett's Test of Sphericity	Eigen Value	Variance Explain	Cronbach Alpha
Communication	4	.44 to .81	.74	197.31, p=.000	2.84	70.96	.86
Motivation to learn	7	.76 to .85	.91	673.34, p=.000	5.45	77.92	.95
Transfer of Competency	4	.73 to .88	.86	337.69, p=.000	3.36	83.99	.94
Job Performance	5	.73 to .90	.87	432.33, p=.000	4.02	80.37	.95

Table 3 shows the results of Pearson correlation analysis and descriptive statistics. The means for the variables are from 5.50 to 6.20, signifying that the levels of supervisor communication, motivation to learn, transfer of competency and job performance ranging from high (4) to highest level (7). The correlation coefficients for the relationship between the independent variable (i.e., supervisor communication) and the mediating variable (motivation to learn) and the dependent variable (transfer of competency and job performance) were less than 0.90, indicating that the data were not affected by serious colinearity problem (Hair, et. al., 1998). The measurement scales that had validity and reliability were used to test research hypothesis.

Table 3: Pearson correlation analysis and descriptive statistics

Variable	Mean	Standard Deviation	Pearson Correlation Analysis			
			1	2	3	4
Supervisor Communication	5.50	.82	1			
Motivation to Learn	6.13	.73	.39**	1		
Transfer of Competency	6.00	.76	.40**	.72**	1	
Job Performance	6.20	.71	.31**	.64**	.66**	1

Note: Level of Significance =** 0.01 level N=100

Pearson correlation analysis was unable to determine the mediating role of motivation to learn in the hypothesized model. Stepwise regression analysis was undertaken to test the mediating hypothesis because it can assess the magnitude of each independent variable, and vary the mediating variable in the relationship between many independent variables and one dependent variable (Baron and Kenny, 1986). According to Baron and Kenny (1986), the mediating variable can be considered when it meets three conditions: first, the predictor variables are

significantly correlated with the hypothesized mediator. Second, the predictor and mediator variables are all significantly correlated with the dependent variable. Third, a previously significant effect of predictor variables is reduced to non-significance or reduced in terms of effect size after the inclusion of mediator variables into the analysis (Wong, et. al., 1995). In this regression analysis, standardized coefficients (standardized beta) were used for all analyses (Jaccard, et. al., 1990). The results of testing H₁ and H₂ are shown in Table 4.

Table 4: Result for stepwise regression analysis

Variable	Transfer of Competency			Job Performance		
	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
<u>Controlling Variable</u>						
Gender	.05	.05	-.00	.08	.07	.02
Age	.11	.05	.02	.10	.06	.03
Education	.05	.00	.03	-.06	-.10	-.08
Service	-.14	-.10	-.06	-.07	-.04	-.00
Training	.12	.19*	.06	.10	.16	.04
Learning	.03	.03	-.01	-.06	-.06	-.10
Position	-.19	-.13	-.11	-.03	.02	.05
<u>Independent Variable</u>						
Communication		.43***	.15		.35***	.09
<u>Mediating Variable</u>						
Motivation to Learn			.65***			.60***
<i>R Square</i>	.06	.23	.55	.03	.14	.42
<i>Adjusted R Square</i>	-.01	.16	.51	-.04	.07	.36
<i>R Square Change</i>	.06	.17	.32	.03	.11	.28
<i>F</i>	.85	3.4**	12.4***	.41	1.9	7.3***
<i>F Change</i>	.85	20.0***	64.9***	.41	12.0***	43.3***

Note: Level of Significance = *p<0.05; **p<0.01; ***p<0.001

Table 4 shows two important results of testing mediating model in Step 3. Firstly, the relationship between motivation to learn and supervisor communication significantly correlated with transfer of competency ($\beta=.65$, $p<0.001$), therefore H₁ was supported. Before the inclusion of motivation to learn into Step 2, supervisor communication significantly correlated with transfer of competency ($\beta=.43$, $p>0.001$). As shown in step 3 (after the inclusion of motivation to learn into this step), the previous significant of such relationships changed to non-significant (step 3: $\beta=.15$, $p>0.05$). In terms of explanatory power, the inclusion of motivation to learn in Step 3 had explained 55 percent of the variance in the dependent variable. This result sends a signal that motivation to learn does act as a mediating effect in the relationship between supervisor communication and transfer of competency in the organizational sample.

Secondly, the relationship between motivation to learn and supervisor communication significantly correlated with job performance ($\beta=.60$, $p<0.001$), therefore H₂ was supported. Before the inclusion of motivation to learn into Step 2, supervisor communication significantly correlated with job performance ($\beta=.35$, $p>0.001$). As shown in step 3 (after the inclusion of motivation to learn into this step), the previous significant of such relationships changed to non-significant (step 3: $\beta=.09$, $p>0.05$). In terms of explanatory power, the inclusion of motivation to learn in Step 3 had explained 42 percent of the variance in the

dependent variable. This result sends a message that motivation to learn does act as a mediating effect in the relationship between supervisor communication and job performance.

Discussion and Implications

The findings of this study confirm that supervisor communication indirectly affects transfer of competency and job performance via motivation to learn. In the studied organization, supervisors have used good communication practices (e.g., provide feedback, encourage discussion and openly deliver information on training) when dealing with training programs. The majority of the employees perceive that such supervisors' role had increased their motivation to learn. When employees' motivation to learn have increased this may lead to increase both transfer of competency and job performance in the organizational sample.

This study provides significant impacts on three major aspects: theoretical contribution, robustness of research methodology, and contribution to the Human Resource practitioners. In terms of theoretical contribution, this study revealed four important outcomes. Firstly, motivation to learn does act as a mediating variable in the relationship between supervisor communication and transfer of competency. This outcome is consistent with Foxon (1993). Thirdly, motivation to learn does act as a mediating variable in the relationship between supervisor communication and job performance. This result is consistent with the studies done by Elangovan and Karakowsky (1999) and Goldstein and Ford (2002). In sum, the notion of motivation to learn has been successfully applied within the training management models of the studied organization. Hence, these findings have supported and broadened training research literature mostly published in the US organizational settings. With respect to the robustness of research methodology, the data gathered using training management literature, the in-depth interviews, pilot study and survey questionnaires have exceeded an acceptable standard of validity and reliability analysis, thus leading to the production of accurate findings.

Regarding practical contributions, the findings of this study can be used as a guideline by the management to upgrade the effectiveness of training programs in their organizations. Hence, continuous learning culture must be created through supervisor support in communication intervention of the training programme. Therefore, training programme must be focused on supervisor behaviour and communication in order to maximise the benefits of their support for training effectiveness. This objective may be achieved if the management consider the following suggestions: firstly, the ability of supervisors in communicating the information about training programs can be sharpened if they are properly trained with the latest knowledge and skills in the training needs analysis, interpersonal communication, managing employee, change and conflict management. Secondly, supervisors will effectively communicate the information about training programs if they are involved in organisational training committees. This may allow them to provide practical experiences for establishing the vision, mission, objectives and appropriate modules for training programs. Thirdly, supervisors may effectively motivate employees to attend and apply competencies that they learn from informal and formal training programs if top management hires employees with appropriate qualifications and skills. Finally, top management support particularly in the form of monetary or non-monetary incentives can motivate supervisors to increase their efforts in monitoring the development of employees' competencies. These factors may positively motivate supervisors to achieve organisational and human resource department's strategies and goals.

Conclusion

This study confirms that motivation to learn acts as a full mediating role in the relationship between supervisor communication and individual attitudes and behaviors. This result has supported and extended training research literature mostly published in the Western countries. Therefore, current research and practices within training management models must consider motivation to learn as a crucial aspect of organisational training system where increasing individuals' motivation to learn may strongly induce positive subsequent personal outcomes (e.g., competency, performance, satisfaction, commitment, trust, and positive moral values). Thus, these positive outcomes may motivate employees to sustain and support organisational and human resource department's strategies and goals.

References

- Acton, T. and Golden, W. (2003). Training the knowledge worker: a descriptive study of training practices in Irish software companies. *Journal of European Industrial Training*, 27(2/3/4).
- Adams, J.S. (1963). Towards an understanding of inequity, *Journal of Abnormal and Social Psychology*, 67: 422-436.
- Adams, J.S. (1965). Inequity in social exchange, In L. Berkowitz, *Advances in Experimental Social Psychology*, 2: 267-299.
- Adair, J. (1988). *The effective supervisor*. The Industrial Society: London.
- Baron, R.M., and Kenny, D.A. (1986). This moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations, *Journal of Personality and Social Psychology*, 51 (6): 1173-1182.
- Bohlander, G., Snell, S., and Sherman, A. (2001). *Managing human resources*. Australia: South-Western College Publishing.
- Chiaburu, D.S., and Tekleab, A.G. (2005). Individual and contextual influences on multiple dimension of training effectiveness. *Journal of European Industrial Training*, 29 (8): 604-626.
- Davis (1971). *Elementary Survey Analysis*. New Jersey: Prentice Hall.
- DeSimone, R.L., Werner, J.M. and Harris, D.M. (2002). *Human resource development*, Thomson Learning, Inc.
- Elangovan, A.R. and Karakowsky, L. (1999). The role of trainee and environmental factors in transfer of training: An exploratory framework. *Leadership and Organization Development Journal*, 20: 268-275.
- Eysenck, M. (1998). *Psychology: An integrated approach*. New York: Addison-Wesley Longman Ltd.

- Farr, J.L. and Middlebrooks, C.L. 1990. Enhancing motivation to participate in professional development. In Willis, S.L and Dubin, S.S (Eds), *Maintaining Professional Competence*, Jossey-Bass, San Francisco, CA, 195-213.
- Foxon, M. (1993). A process approach to the transfer of training. Part 1: The impact of motivation and supervisor support on transfer maintenance. *Australian Journal of Educational Technology*, 9 (2): 130-143.
- Goldstein, I.L. and Ford, J.K. (2002). *Training in organization: Needs assessment, development and evaluation*, CA: Wadsworth Group, Thomson Learning, Inc.
- Hair, J.F., Anderson, R.E., Tatham, R.L., and Black, W.C. (1998). *Multivariate data analysis*, New Jersey: Prentice Hall International, Inc.
- Harris, R., Simon, M. and Bone, J. (2000). *More than meets the eye? Rethinking the role of workplace trainer*. Australian National Training Authority, 1-65.
- Huang, I.C., Huang, P.W., and Chen, Y.J. (2004). A study of Taiwan's travel agent salary: An agency theory perspective. *Tourism Management*, 483-490.
- Jaccard, J., Turrissi, R. and Wan, C.K. (1990). *Interaction effects in multiple regression*. SAGE Publications, Inc.
- Mondy, R.W, Noe, R.M and Premeaux, S.R. (1999). *Human Resource Management*, 7th Ed., New Jersey. Prentice Hall Inc.
- Moses, I. 1994. Planning for quality in graduate studies. In Zuber Skeritt, O and Ryan, Y. (Eds) *Quality in Postgraduate Education*, Kogan Page, London.
- Nijman, D.J.J. (2004). *Differential effects of supervisor support on transfer of training*. Enschede: University of Twente.
- Nunally, J.C. and Bernstein, I.H. (1994). *Psychometric theory*. New York: McGraw- Hill.
- Pollitt, D. (2007). Travel center journeys to better performance: Training transforms employees' attitudes and approach. *Human Resource Management International Digest*, 15(6): 18-20.
- Rabey, G. (2007). Diagnose – then act. Some thoughts on training today. *Industrial and Commercial Training*, 39(3): 164-169.
- Rodríguez, C.M., and Gregory, S. (2005). Qualitative study of transfer of training of student employees in a service industry. *Journal of Hospitality and Tourism Research*, 29 (1): 42-66.
- Sekaran, U. (2000). *Research methods for business: A skill building approach*, New York: John Wiley and Sons, Inc.
- Sisson, G.R. (2001). *Hands-on-training: A simple and effectiveness method of on-the-job training*, San Francisco: Berret-Koehler.

- Tsai, W.C., and Tai. (2003). Perceived importance as a mediator of the relationship between training assignment and training motivation. *Personal Review*, 31 (2): 151-163.
- Van Maanen, J. (1983). *Qualitative methodology*. Beverly Hills, CA: Sage Publications.
- Vroom, V.H. (1964). *Work and motivation*, New York: John Wiley and Sons.
- Vroom, V.H. (1973). A New look at managerial decision making. *Organizational Dynamics*, 69-70.
- White, S. (2008). Siemens A&D customer support increases customer satisfaction through effective training and coaching. *Industrial and Commercial Training*, 40(1): 22-45.
- Wong, C., Hui, C., and Law, K.S. (1995). Causal relationships between attitudinal antecedents to turnover. *Academy of Management Journal*, 342-346.
- Yamhill, S., and McLean, G.N. (2001). Theories supporting transfer of training, *Human Resource Development Quarterly*, 12: 195-208.
- Zhao, F. (2003). *Postgraduate Research Supervision: A process of knowledge management*, available at <http://ultibase.rmit.edu.au/Articles/may01/zhao1.htm>
- Zuber Skeritt, O. and Ryan (Eds). 1994. *Quality in Postgraduate Education*, Kogan Page, London.