The Effects of a Near Versus Far Transfer of Training Approach on Trainees' Confidence to Coach Related and Unrelated Tasks

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This study examines the differences between a near versus far transfer of training approach and their impact on learning. A post-test only experimental design was used to collect data from supervisors attending a training session on coaching. Results showed differences in coaching confidence for trainees who were trained using a near training transfer approach versus trainees who were trained using a far training transfer approach. Discussions and implications for research and practice are included.

Keywords: Near and Far Transfer of Training, Learning, Performance Improvement

There is strong consensus that acquisition of skills, knowledge, and attitudes through training is of limited value if these skills are not transferred to the job setting and improve job performance (Baldwin and Ford, 1988; Goldstein & Ford, 2002; Yamnill & McLean, 2001). Still, few organizations can show that their training investments result in improved employee job performance (Holton & Baldwin, 2000). Numerous theories and models of transfer have been described in the literature (Baldwin and Ford, 1988; Holton and Baldwin, 2000; Holton, Bates, Seyler, and Carvalho,1997; Noe,1986; Rouiller & Goldstein, 1993; Tracey, Tannenbaum & Kavanaugh, 1995, Yamnill and McClean, 2001). However, few models emphasize performance over learning as a training output. One exception to this is Holton's (1996) model, which emphasizes individual performance as an outcome of the transfer process. Two dimensions of performance are specified: near transfer or short-term results and far transfer or longer-term transfer emphasizing generalization of learning to new situations. Depending on the organizational goals and the expected performance outcomes of the HRD training program, training objectives and learning requirements may call for either a near or far transfer approach to training. Thus, it would be expected that performance outcomes from learning would provide an appropriate balance between near and far transfer (Holton & Baldwin, 2000). Yet, most research has focused on the conditions for near transfer to occur (Clark & Voogel, 1985; Holton & Baldwin, 2000; Laker, 1990; Kim & Lee, 2001).

Problem and Purpose of the Study

The purpose of this study was to determine the effects of a near versus far transfer of training approach on trainee's confidence to coach related and unrelated tasks. Results from the study improve theoretical understandings of the differences between near and far training transfer and how these differences might impact training outcomes and potential changes in job behaviors. The study also provides HRD practitioners with information about how far transfer might reduce the amount of training conducted and potentially increase productivity by developing more flexible, multi-skilled employees. Four research questions were identified to guide the study:
  (1) Do trainees who are trained using a far training transfer approach have equal confidence to coach both related and unrelated tasks?
  (2) Do trainees who are trained using a near training transfer approach have greater confidence to coach related tasks?
  (3) Do trainees who are trained using a far and near training transfer approach differ in their assessment of learning outcomes?
  (4) Do trainees who are trained using a near and far training transfer approach show different relationships between demographic factors and confidence to coach and learning?

Review of the Literature

This section presents the theories and models of training transfer that are relevant to the theoretical framework of this study.

Near and Far Transfer of Training

    Definitions. Laker (1990) defines near transfer as the application of learning to situations similar (such as closely related contexts and performances) to those in which the original learning has taken place. Thus, near transfer of training is defined as a situation where the stimulus for the original learning event is similar to the stimulus for the transfer event (Royer, 1979). For example, if the original learning task involved adding two digit numbers, near transfer might be determined by adding three digit numbers. Likewise, Laker defines far transfer as the application of learning to situations dissimilar (such as different contexts and performances) to those of the original learning events. Thus, far transfer refers to a situation where the stimulus between the original learning event and the transfer event are somewhat different. An example of far transfer is originally learning number problems and substituting addition word problems for the transfer task. Generalization or the extent to which knowledge, skills, and attitudes acquired in training are applied to different tasks or to settings beyond the training context (Adams, 1987) is important when designing training to achieve far transfer. To summarize, near transfer consists of transfer from initial learning that is situated in a given setting to ones that are closely related supporting a situated view of learning where knowledge transfers only to similar situations or contexts (Perkins & Salomon, 1988; Stein, 2000). In contrast, far transfer refers to both the ability to use what was learned in one setting to a different one as well as the ability to solve new problems (Perkins & Salomon, 1988).

    Learning requirements. The literature suggests that near and far transfer include different learning requirements. The requirements for near transfer depend mostly on the similarity between the training and the task (Kim & Lee, 2001). However, achieving far transfer requires additional considerations. As stated, Laker (1990) proposes that far transfer depends on whether the training includes information regarding the underlying the underlying principles and assumptions regarding the skills and behaviors being trained

    Performance implications. Training is now viewed from a system's perspective as an integral part of a business's strategic direction (Salas, Cannon-Bowers, 2001). Jacobs (2003) suggested that training programs have a strategic role in organizations due to changes in the nature of work (such as advanced technologies), which require employees to solve problems and make complex decisions. Thus, having employees with high levels of expertise who can deal with both routine and non-routine tasks is of strategic importance to organizations. Since far transfer focuses on trainees learning more general concepts which may be applied to a wider set of contexts than those presented in the training setting (Kim & Lee; 2001), it may be useful in developing experts who can perform both types of tasks.

Training Design

    Training design includes purposeful elements that are part of the training program to enhance transfer. Training design variables can be categorized into two domains: instructional design and instructional method. Baldwin & Ford (1988) discuss two key instructional design issues that impact learning transfer: identical elements and general principles. First, near transfer is maximized when there are identical stimulus and response elements in the training and transfer settings (Perkins & Salomon, 1988). Still, McGehee and Thayer (1961) suggest that transfer is enhanced when trainees are taught, not just an applicable skill, but also the general rules and theoretical principles that underlie the training content. Kim and Lee (2001) suggest that providing multiple examples in various contexts is required to achieve far transfer when using structured OJT.

Transfer of Training Issues

    According to Holton (1996) one cause of failure to transfer is that training design does not provide for the ability to transfer the learning. Baldwin and Ford (1988) described training design as a training input consisting of principles of learning, sequencing, and training content. Regarding training content they discuss the work of instructional theorists such as Gagne and Briggs (1979) who have looked at learning outcomes (intellectual skills, motor skills, and cognitive strategies) to determine conditions of learning which best support each learning outcome. Baldwin and Ford suggest that a logical extension of this work is the inclusion of the transfer outcomes generalization and maintenance. Consider that there is little room for error in teaching someone how to safely operate a power tool. In this situation a near transfer of training approach is more appropriate for trainees to replicate the training behavior as closely as possible. Yet, Baldwin and Ford further explain that in the case of supervisory skills training, the objective is to have trainees generalize the rules and concepts (specifying a class of behaviors given a particular stimulus) making it unproductive to have the trainee reproduce only those behaviors specifically taught. Instead, a far transfer of training approach is more appropriate for supervisory skills training where the trainee needs to learn, generalize, and apply behaviors that may differ from those learned in training.

Method

The sections that follow describe the sample and procedures used.

Sample

Forty-five front-line supervisors employed in both heath and non-health related positions in a comprehensive university medical center in the United States participated in the study. The study was conducted as part of four front line supervisory training sessions on coaching offered by the Educational Development and Resources Department. From a list of all front-line supervisors in the organization, eighty-two supervisors were contacted and invited to the training. From this list fifty-eight supervisors agreed to attend the training (71 percent) and forty-five (78 percent) actually completed the training. On the first day of training thirty-one supervisors were randomly assigned to one of two groups of training, 16 to the near group and 15 to the far group. On the second day of training 14 supervisors were randomly assigned to one of two groups of training, 7 to the near group and 7 to the far group.

The demographic information collected from sample subjects prior to training showed the following differences and similarities between the near and far groups on average: 1) the near group had more years experience as a supervisor than the far group, 7-10 years versus 3-6 years respectively; 2) the far group worked fewer years with their present employer than the near group, 5-10 years versus less than five years respectively; 3) both groups supervised on average more than 10 employees, 4) the far group supervised more non-clinical employees than the near group, 80 percent versus 54 percent respectively; 5) the near group had more male subjects than the far group, 59 percent versus 52 percent respectively; 6) both groups averaged 13 to 15 years education but the near group had more subjects with 16 years education or more, 45 percent versus 36 percent respectively; 7) subjects in the far group were younger, 40 years versus 46 years respectively; 8) both groups were very experienced working one-on-one with employees, yet the far group had more subjects with little experience than the near group, 12 percent versus 4.5 percent respectively; 9) both groups spend 4 to 6 hours per week working one-on-one with employees, yet the far group had more subjects who worked less than one hour with employees than the near group, 24 percent versus 4.5 percent respectively.

Data Collection and Instruments

A post-test only experimental design was used to test the effects of a near versus far transfer of training approach on trainees' transfer confidence and learning. Data was collected over two days during four training sessions at two collection points either immediately before or immediately after the training sessions. First, trainers asked all subjects to complete a participant information sheet at the beginning of the training sessions to collect data on the demographic variables. The second data collection point involved two activities immediately following the training sessions. First, trainers had the trainee's complete the learning activity by generating an example from their own experience when they observed an employee being ineffective at their job. Then, trainees were asked to write down in their own words how they would coach this person based on the training they just received. Second, transfer coaching was measured based on a questionnaire developed by the researcher consisting of fourteen measure items that consisted of tasks that were either related or unrelated to each of the coaching training sessions. Subjects were asked to rate their level of confidence to provide coaching in the situations provided based on the training they had just received using a four point scale with one as the low point and four as the high point. Two instruments were developed to measure the variables in this study.

Learning. Learning was operationally defined as the trainee's achievement of the learning objectives stated in the training modules. The researcher developed a behavior learning rating scale that was used by independent raters to rate the trainee's learning. A panel of experts and two pilot tests were used to assess the face and content validity and reliability of the instrument. In addition, to further assess the reliability of the instrument a measure of internal consistency was conducted across the three rater's scores and a Cronbach's alpha of .98 was obtained.

Transfer coaching. Transfer coaching was operationally defined as trainees' perceived level of confidence in being able to generalize their new skills to tasks that were both related and unrelated to those emphasized in training. Transfer coaching was measured based on a questionnaire developed by the researcher consisting of fourteen measure items that consist of tasks that are either related or unrelated to each of the coaching training sessions. A panel of experts and a pilot test were used to assess the face and content validity and reliability of the instrument. In addition, to further assess the reliability of the instrument a measure of internal consistency was conducted across the 14 measure items and a Cronbach's alpha of .68 was obtained.

Results

Transfer Coaching and Far Transfer

A t-test for paired samples was used to test the difference between the means of the transfer coaching scores for subjects in each of the two groups (near and far). Regarding research question one, Table 1 shows that trainees who were trained using a far training transfer approach had a mean confidence level score of 3.13 on unrelated tasks (far) tasks with a standard deviation of .636 and a mean confidence level score of 3.03 on related tasks (near) with a standard deviation of .683. Table 2 shows that the confidence level score on unrelated (far) tasks was only .11 higher than on related (near) tasks and that the t value in terms of related and unrelated tasks was 2.341 and was not statistically significant at the .05 alpha level. Since there was no significant difference in confidence levels for coaching either related or unrelated tasks, it appears that trainees who were trained using a far training transfer approach have equal confidence to coach both related and unrelated tasks.

Table 1. *Paired Sample t-test for Far Group (n = 23) on Confidence Levels for both Related and Unrelated Tasks*

Paired Sample Statistics			
Group: Far	Mean	SD	SE
CL Far Measure Item Scores	3.13	.636	.13275
CL Near Measure Item Scores	3.03	.683	.14256

Table 2. *Mean, Standard Deviation and Standard Error for Far Group on Confidence levels for Both Related and Unrelated Tasks (n = 23) *significant at the .05 level*

Paired Samples Test					
Group: Far	Mean Difference	SD	SE	t	df
Paired Differences CL Far – CL Near	.11	.216	.04510	2.341	22

Transfer Coaching and Near Transfer

A t-test for paired samples was also used to test the difference between the means of the transfer coaching scores for subjects in the near group. Table 3 shows that trainees who trained using a near training transfer approach had a mean confidence level score of 3.45 on related tasks (near) with a standard deviation of 1.12. Table 4 shows that the confidence level score on related (near) tasks was .58 higher than on unrelated (far) tasks and that the t value in terms of related and unrelated tasks was -2.292 and was statistically significant at the .05 alpha level. Thus, trainees who were trained using a near training transfer approach have greater confidence to coach related tasks.

Table 3. *Mean, Standard Deviation and Standard Error for Near Group on Confidence levels for Both Related and Unrelated Tasks (n = 22)*

Paired Sample Statistics			
Group: Near	Mean	SD	SE
CL Far Measure Item Scores	2.87	.58	.12157
CL Near Measure Item Scores	3.45	1.12	.24067

Table 4. *Paired sample t-test for Near Group (n = 22) on Confidence Levels for both Related and Unrelated Tasks * significant at the .05 level.*

Paired Samples Test					
Group: Near	Mean Difference	SD	SE	t	df
Paired Differences CL Far – CL Near	.58	1.18	.25212	-2.292 *	21

Learning Outcomes

An independent t-test was used to test the difference between the mean rater scores for learning. Levene's test for equality of variances was conducted to ensure equal variances. An F ratio of 1.882 with a probability of .177 supported the assumption of homogeneity so results of the t test for equal variances were examined. Table 5 shows that trainees who were trained using a near training transfer approach had a mean rater score for learning of 24.10

with a standard deviation of 7.90. Also, Table 5 shows that trainees who were trained using a far training transfer approach had a mean rater score of 26.45 with a standard deviation of 8.13. Table 6 shows that there was no significant difference in the assessment of learning outcomes for the near and far groups. The t value is -.982 and is not significant at the .05 alpha level. Thus, trainees who were trained using a near and far transfer of training approach did not differ in their assessment of learning outcomes.

Table 5. *Mean, Standard Deviation and Standard Error for Rater's Scores for Near Group and Far Group*

Independent Sample Statistics Rater's Scores	n	Mean	SD	SE
Near Group	22	24.10	7.90	1.68
Far Group	23	26.45	8.13	1.69

Table 6. *Independent Sample t-test for Near Group (n = 22) and Far Group (n = 23) for Rater's scores of learning.* * significant at the .05 level*

Independent Sample t test	Mean Difference	t	df	Sig.
Rater's Scores Learning Near and Far Groups	-2.350	- .982	43	.332

Demographics and Transfer Coaching and Learning

Correlation coefficients were examined to look at the nature of the relationships between trainees' demographic information and the dependent variables: transfer coaching and learning. For the near group Table 7 shows moderate positive correlations between education level and total learning. Age was negatively correlated with learning along with experience working one on one and years as a supervisor. For the far group Table 8 shows there was a strong positive correlation between education level and total confidence. However, there was a moderate negative correlation between years with present employer and total confidence. Finally, the learning score and the confidence score were moderately correlated, suggesting that the more confident the participants were, the higher their learning.

Table 7. *Correlations Between Transfer Coaching and Learning and Demographic Variables (Near Group)*

Variables	Mean	SD	X_1	X_2	X_3	X_4	X_5	X_6	X_7	Y_1	Y_2
Educ. Lvl (X_1)	2.19	.81	1								
Yrs. as sup. (X_2)	2.61	1.4	-.26	1							
Yrs. with presnt emp. (X_3)	2.07	.80	-.15	.47*	1						
Number emps. supv. (X_4)	2.53	.76	-.18	-.14	-.01	1					
Exp. working one-on-one (X_5)	3.42	.64	-.32	.70**	.17	-.08	1				
Hrs. spent one-on-one (X_6)	3.23	1.4	.40*	-.19	-.28	-.24	.20	1			
Age (X_7)	45.6	10.2	-.43*	.55**	.46*	.14	.32	-.36	1		
Total learning score (Y_1)	74.1	22.7	.43*	-.61**	-.37	-.10	-.41*	.35	-.513**	1	
Total conf. level (Y_2)	42.1	6.4	.23	-.12	-.32	.22	-.01	.36	-.10	.14	1

Note: n=26 *Correlation is significant at the .05 level.** Correlation is significant at the .01 level.

Table 8. *Correlations Between Transfer Coaching and Learning and Demographic Variables (Far Group)*

Variables	Mean	SD	Intercorrelations								
			X_1	X_2	X_3	X_4	X_5	X_6	X_7	Y_1	Y_2
Educ. level (X_1)	2.09	.83	1								
Yrs. as suprvsr (X_2)	2.42	1.24	-.43	1							
Yrs. with presnt emp. (X_3)	1.85	.79	-.13	.16	1						
No. emps. supvd. (X_4)	2.72	.64	.24	.22	.21	1					
Exp. working one-on-one (X_5)	3.42	.67	-.25	.24	-.16	.18	1				
Hrs. spent one-on-one (X_6)	3.14	1.5	.14	.01	-.18	-.05	.32	1			
Age (X_7)	39.6	10.6	-.54*	.80**	.08	-.03	.17	-.06	1		
Total learning score (Y_1)	78.4	25.3	.50	-.08	.011	.37	.10	-.06	-.23	1	
Total conf. level (Y_2)	43.7	9.6	.70**	-.29	-.47*	.05	.21	.38	-.44	.55*	1

Note: n=21 *Correlation is significant at the .05 level. **Correlation is significant at the .01 level.

Table 9. *Correlations Between Transfer Coaching and Learning and Demographic Variables (Near and Far Groups Combined)*

Variables	Mean	SD	Intercorrelations								
			X_1	X_2	X_3	X_4	X_5	X_6	X_7	Y_1	Y_2
Educ. level X_1)	2.14	.80	1								
Yrs.as sup. (X_2)	2.53	1.2	-.32*	1							
Yrs. with prsnt emp. (X_3)	1.97	.79	-.13	.34*	1						
Number emps. Supvd. (X_4)	2.61	.70	-.01	-.01	.06	1					
Exp.wrking one-on-one (X_5)	3.42	.65	-.28*	.49**	.01	.03	1				
Hrs. spent one-on-one (X_6)	3.19	1.42	.27	-.09	-.22	-.16	.26	1			
Age (X_7)	42.94	10.7	-.44**	.64**	.31*	.02	.24	-.19	1		
Total learning score (Y_1)	75.97	23.7	.45**	-38**	-.20	.10	-.18	.15	-.39**	1	
Total conf. level (Y_2)	42.86	7.8	.45**	-.20	-.39**	.14	.10	.36*	-.29	.36*	1

Note: n=47 *Correlation is significant at the .05 level. **Correlation is significant at the .01 level.

Discussion

The findings challenge HRD researchers and practitioners to reexamine relationships between learning, training and performance. Two meaningful insights emerged regarding designing training from a far transfer of training approach: 1) the potential for optimizing investments in training through improved performance and, 2) the potential for developing employee expertise through improved learning.

Training Design

First, the results showed that the training design of the instructional modules used in the study supported how learning requirements for far transfer and near transfer are distinguished in the literature. This finding is important because little is known about designing transfer to achieve far transfer since transfer models do not differentiate between near and far design elements and proposed frameworks do not identify the instructional elements that may influence transfer. Second, this finding means that additional ways to design training for teaching skills need to be considered for optimizing investments in training. Researchers have suggested that the instructional design literature has not has not kept up with how to design programs for far transfer (Smith, Ford, & Kozlowski, 1997). Although a significant portion of the investment in workplace training is focused on specific job needs, it's logical to assume that the intention is usually not just to have trainees learn only specifics of the training course. Rather, it seems more productive to build skills in training that will transfer to various job situations.

Learning

There are two points that are of considerable interest in terms of learning. First, since the results showed that supervisors in both the near and far groups acquired similar levels of knowledge based on the training they received learning may not be negatively impacted as a result of far transfer. This is important since it has been suggested that by achieving far transfer, you may give up near transfer due to less repetition and overlearning (Laker,1990). Second, having knowledge that training can be designed to support far transfer and knowing that competency based training may have potential for developing employees who can make better use of general KSA's and behaviors, this finding means that additional consideration should be given to developing employee expertise.

Implications for Research and Practice

This study shows the strategic potential of far transfer to link individual changes from training to the larger organizational system by designing training that allows trainees to generalize concepts to other job tasks and contexts. Additional research is needed to better understand how to design training to achieve employee expertise by teaching competency based training such as problem solving skills and critical thinking skills that transfer to non-specific job tasks. Future research should also try to identify variables that influence work experience and learning. Since there was a negative correlation between years with present employer and total confidence for the far group, more needs to be known about long term experience and confidence and their relationship to far transfer. Qualitative research using a critical incident technique could be used to identify the specific work experiences and behaviors that may inhibit or enhance far transfer. Also, work experiences that may serve as barriers to transfer need to be identified.

An important implication of this study for HRD practitioners is that far transfer may have the potential to optimize investments in training by reducing the amount of training conducted if one training program can apply to more than one situation (Jacobs, 2003). In addition, by focusing on the human ability to generalize concepts, far transfer principles could be applied in designing training for more varying units of work (Jacobs; Lee, Kim, & Jacobs, 2002). This could increase productivity by assisting in the development of more flexible, multi-skilled employees (Jacobs, 2003).

Limitations

Several limitations should be kept in mind when interpreting the results of this study. First, this study involved font-line supervisors in one organization and used a specific training program. Also, the trainees included supervisors form both clinical and non-clinical positions. Thus, caution should be exercised in generalizing these conclusions to different populations and to conditions different than those in the study. Second, this study was concerned with trainee's confidence relative to task performance. It did not address other types of job behaviors. Third, the nature of the quantitative paradigm and the experimental design used in the study do not account for additional qualitative differences. Finally, the results of the study are limited by the instruments used.

References

Adams, J. (1987). Historical review and appraisal of research on the learning, retention, and transfer of human motor skills. *Psychological Bulletin, 101,* 41-74.

Baldwin, T; & Ford, J. (1988). Transfer of training: A review and directions for future research. *Personnel Psychology*, *41*, 63-105.

Campbell, J.P. (1990). Modeling the performance prediction problem in industrial and organizational psychology. In M.D. Dunnette & L.M. Hough (Eds.), *Handbook of industrial and organizational psychology:* Vol.1. (2nd ed; pp. 687-732). Palo Alto, CA: Consulting Psychologists Press.

Clark, R.E; & Voogel, A. (1985). Transfer of training principles for instructional design. E*ducation, Communication and Technology Journal, 33*(2), 113-123.

Gagne, R.M; & Briggs, L.J. (1979). *Principles of instructional design* (2nd ed.). New York: Holt, Rinehart, & Winston.

Goldstein, I.L., Ford, K.J. (2002). *Training in Organizations: Needs assessment, development and evaluation.* Belmont, CA: Wadsworth Thompson Learning.

Holton, E.F. (1996). The flawed four level evaluation model. *Human Resources Development Quarterly, 7*, 5-21.

Holton, E; & Baldwin, T. (2000). Making transfer happen: An action perspective on learning transfer systems. *Advances in Developing Human Resources, 8,* 1-6.

Holton, E. F. III; Bates, R.A; Seyler, D.L; & Carvalho, M.B. (1997). Toward construct validation of a transfer climate instrument. *Human Resource Development Quarterly,8*, 95-113.

Jacobs, R. (2003). *Structured on-the-job training: Unleashing employee expertise in the workplace*(2nd ed.). San Francisco: Berrett-Koehler.

Kim, J. H; & Lee, C. (2001). Implications of near and far transfer of training on structured on-the-job training. In R.L. Jacobs (Ed.), *Planned training on the job 3,* 442-451. Thousand Oaks, CA: Sage.

Laker, D. R. (1990). Dual dimensionality of training transfer. *Human Resource Development Quarterly*, *1*(3), 209-224.

Lee, C; Kim, J; & Jacobs, R. (March, 2002). Expanding the Transfer of Training Domain of Structured On-the-Job Training. In A. Oliaga (ed.), *Proceedings of the Annual Conference of the Academy of Human Resource Development,* Bowling Green, OH: Academy of Human Resource Development.

McGehee, W; & Thayer, P.W. (1961). *Training in business and industry.* New York:Wiley.

Noe, R.A. (1986). Trainee's attributes and attitudes: Neglected influences on training effectiveness. *Academy of Management Review*, *11*, 736-749.

Perkins, D. N; & Solomon, G. (1988). Teaching for transfer. *Educational Leadership, 46*(1), 22-32.

Rouillier, J.Z; & Goldstein, I.L. (1993). The relationship between organizational transfer climate and positive transfer of training. *Human Resource Development Quarterly,4*, 377-390.

Royer, J.M. (1979). Theories of the transfer of learning. *Educational Psychologist, 14*, 3-69.

Salas, E. & Cannon-Bowers, J.A. (2001). The science of training: A decade of progress. In *Annual Review of Psychology, 52,* 471-499.

Smith, E. M; Ford, J. K; & Kozwolski, S.W.J. (1997). Building adaptive expertise: Implications for training design. In M.A. Quinones & A. Dudda (Eds.), *Training for a Rapidly Changing Workplace: Applications of Psychological Research* (pp.89-18). Washington, DC: APA Books.

Stein, D. (1998). Situated learning in adult education (Report No. ED418250). U.S.Department of Education, Educational Resources Information Center (ERIC).

Tracy, J. B., Tannenbaum, S. I., & Kavanagh, M. J. (1995). Applying trained skills on the job: The importance of the work environment. *Journal of Applied Psychology,80*(2), 239-252.

Yamnill, S.&McLean, G.(2001).Theories supporting training transfer. *Human Resource Development Quarterly,12* (2),195-208.