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Leadership development training transfer: a case study of post-training determinants

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Abstract

Purpose – The purpose of this paper is to understand what contributes to transfer of soft-skill, leadership training.

Design/methodology/approach – The paper presents a literature review resulted in five broad factors that may influence transfer of leadership training. These were used to guide a qualitative, exploratory study. Interviews were conducted with 18 participants of an extensive, soft skill oriented leadership development program, along with peer observers. Where possible, quantitative analyses are used to test and confirm qualitative findings.

Findings – The results showed substantial transfer of training and suggest that actual utilization of newly learned skills is influenced differently than judgments about the value of the training. The greatest inhibitor to transfer appeared to be fear of breaking cultural norms and the most important remedy, the number of other managers who receive the training. In particular, having one's boss take the same training was strongly associated with post-training utilization. Some kinds of social support, like encouragement and verbal praise, were associated with positive judgments of the training but not with utilization. Instead, observing others use the skills and being able to coach one another was the kind of "support" that effected utilization, which depended on colleagues and bosses also receiving the training.

Research limitations/implications – As an exploratory case study, the study lacks a large sample and the kind of methodology that could prove the validity of the findings.

Practical implications – A number of implications for training managers wanting to ensure their leadership development programs have real impact are discussed. In particular, the study points to a need to plan for rapid diffusion of the training and for cultural change processes in parallel with leadership development courses.

Originality/value – The paper meets a need for empirical investigation of factors associated with transfer of soft skills into the workplace, as called for by researchers like Cheng and Ho. It identifies differences in what impacts judgments of value versus what actually impacts transfer. It also identifies how changing leadership behavior is as much a cultural intervention as a change in skill sets.

Keywords Leadership development, Training, Skills, Canada

Paper type Case study

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This exploratory study of a leadership development program at Vancouver Island Health Authority (VIHA) was motivated by the opportunity to conduct in depth evaluation research in one large organization implementing a significant, large scale leadership training effort. In our desire to understand what supports and inhibits transfer of leadership training in that organization we discovered that there is little empirical research specifically about transfer of leadership training to guide managers and HRD professionals even though the practical need is great. North American organizations have traditionally made large investments in training. In 1999, it was estimated that companies in the USA spent US$100 billion on direct formal training costs annually (Elangovan and Karakowsky, 1999). A 2001 Conference Board of Canada Survey reported that Canadian organizations have been spending CDN$800-$850 per employee, per annum on training. A report on adult education and training in Canada also showed that employers generally paid 55 percent of fees and tuition for employees in programs and 85 percent of the expenses for employees who go on a course (Statistics Canada, 2001). In addition to costs incurred by having employees away from work, training budgets overall account for an average of 3 to 5 percent of payroll (Brinkerhoff and Gill, 1994).

Since Mosel (1957) there is a widespread perception that training fails to have significant impact as it either fails to transfer or is lost with time (Broad and Newstrom, 1992; Foxon, 1993; Georges, 1988; Grabrowski, 1983; Kelly, 1982). Tannenbaum and Yukl (1992) (as cited in Brinkerhoff and Gill, 1994) found that sometimes less than 5 percent of trainees self-report applying trained skills at work. Tannenbaum (2002) summarizes findings, which suggest that only 20 percent of dollars spent on training result in on-the-job transfer. In addition, it is commonly cited that only around 10 percent of training translates into job performance (Cheng and Ho, 2001; Brinkerhoff and Gill, 1994; Elangovan and Karakowsky, 1999; Kupritz, 2002). Although there appears to be no empirical evidence supporting this estimate, there is enough evidence to show that transfer of training is generally very low (Kupritz, 2002) and managers attest that even with high quality training, transfer outcomes among employees are highly variable (Marx, 1982). Montesino (2002) argues that HRD professionals have emphasized the use of state-of-the-art training techniques at the expense of strategic alignment and transfer of training. Overall, the low rates of transfer has led to the diminishing strategic significance of the training function and strategic HRD and the training budget and function have become easy targets for cutbacks when reduction in total operations costs are required (Brinkerhoff and Gill, 1994).

In response to the diminishing significance of training and HRD, researchers, practitioners and business leaders alike are calling for a shift in focus from viewing training as a standalone class/event, to taking the systemic, long-term focus of aligning training and related programs to the strategic focus of the organization. A recent study found high levels of self reported training transfer correlated with perceptions of how aligned the training is with organizational strategy (Montesino, 2002). Most scholars argue this paradigm shift is necessary to demonstrate the ROI and value of training (Brinkerhoff and Gill, 1994; Gilley and Maycunich, 2000; Harris and DeSimone, 1994).

As a result, the problem of training transfer as measured through evaluation of training has been examined on a variety of levels. Existing models of training evaluation, however, can only be classified as taxonomies (Holton, 1996) and although progress has been made we "still know only a little about a great many factors that

have the potential to influence learning transfer and perhaps even less about how this complex of factors and processes works together to facilitate or inhibit learning transfer" (Bates, 2003, pp. 179-180). Like many others, Bates (2003) concludes that additional research and better practice in training transfer is needed.

The problem of training transfer can be approached by examining the trainees' internal characteristics (e.g. personality, motivation, etc.), the training process/design and the characteristics of the organizational environment (Baldwin and Ford, 1988; Colquitt *et al.*, 2000). The effect of the post-training environment on transfer has been the least examined (Cheng and Ho, 2001; Elangovan and Karakowsky, 1999) and there have been numerous of calls for more and better studies of the post-training environment (Baldwin and Ford, 1988; Noe and Ford, 1992; Tannenbaum and Yukl, 1992). A significant gap in training transfer literature, and the one most relevant to our problem, is the lack of research with management samples representing "soft skills" (Cheng and Ho, 2001), interpersonal skills that require a mix of attitude, cognition and behavior to be employed effectively. Marx (1982) states that management is not exempt from training transfer problems, despite the range of management and leadership courses that are said to be effective. A recent study by Santos and Stuart (2003) revealed that 64 percent of managers returned to their previous work styles after training and that managers are even less likely than other staff to immediately apply training at work especially for developmental or soft skills training. These results are very significant, given that around 25 percent of training budgets are spent on management training (Sims, 1998).

Lacking a comprehensive, pre-existing model of soft skills transfer in the post-training organization environment to guide our efforts at the VIHA, we decided that qualitative research utilizing multiple methods was most appropriate. Rather than use a pure grounded research strategy, we employed Eisenhardt's (1989) procedure and scoured relevant literatures to build on prior constructs to guide our inquiry. What follows next is the result of that review. Using the research on the external post-training environment available in the HRD literature and other models of transfer, notably Rogers (1983), we identified five categories or clusters of variables that have the potential to influence utilization of soft skills training which we then used to construct interview guides and a survey.

Transfer of training and the post-training environment

The definition for training transfer used in this study is a broad one that includes effective and continual application of the learning acquired from formal training back to the workplaces (Noe, 2002). In this study we follow the definition of Baldwin and Ford (1988) which can be summarized as "the generalization of the skills acquired during the training phase to the work environment and the maintenance of these acquired skills over time" (Elangovan and Karakowsky, 1999, p. 268). This definition not only emphasizes continued training transfer in the post-training environment, but also highlights the important concepts of "generalization" and "maintenance" of training. Generalization of training refers to "a trainee's ability to apply learned capabilities (verbal knowledge, motor skills, etc.) to on-the-job work problems and situations that are similar but not completely identical to those problems and situations encountered in the learning environment" (Noe, 2002, p. 5). This, in effect, determines whether the training concepts are operationalized in a way that makes them applicable

in the workplace and is an important determinant of whether trainees will attempt to use the training in their work environment at all. Burke and Baldwin (1999) have found that interventions to facilitate transfer are effective depending on the nature of the post-training environment. In some early management development studies by Baumgartel and Jeanpierre (1972) (as cited in Burke and Baldwin, 1999) and Baumgartel *et al.* (1984), it was found that managers were more likely to apply learned capabilities from training if they worked in favorable environments – environments that encourage trainees to use and maintain their learned capabilities. Following these studies, Noe (1986) coined the term environmental favorability in his/her study of favorable work environments. More recent studies by Rouiller and Goldstein (1993) and Tracey *et al.* (1995) refer to this phenomenon as transfer climate and attribute post-training transfer to organizations with positive transfer climates and learning cultures (Burke and Baldwin, 1999).

Characteristics of a positive transfer climate

Various categories of variables that facilitate positive transfer in the post-training environment can be derived from available models and studies on training transfer and transfer climate. The most common factors that have been studied as well as some derivations of possible variables from theories in other disciplines were combined for this study. Five clusters or categories were found.

Social support

Studies on the effect of the work environment on training transfer have widely discussed support as a major category necessary for positive transfer (Baldwin and Ford, 1988; Huczynski and Lewis, 1990). Support has been operationalized for training transfer studies as manager-supervisor support and/or peer support (Burke and Baldwin, 1999; Noe and Colquitt, 2002; Kupritz, 2002; Santos and Stuart, 2003). Lack of supervisor support after training has been referred to as the bane of training transfer (Brinkerhoff and Gill, 1994). Huczynski and Lewis (1990) found that employees described support from others as the situation in which the environment allowed for "discussing course goals, listening to and backing new ideas ..." (Burke and Baldwin, 1999, p. 229). This characteristic is generalized in Tracey and Tews (1995, p. 40) as the strength of social networks that occurs when "managers or peers openly encourage the use of newly acquired knowledge and skills." Research has shown that this atmosphere of encouragement from others in organizations influences trainees' motivation to apply trained capabilities (Colquitt *et al.*, 2000; Tracey *et al.*, 1995). This atmosphere of encouragement includes recognition for effort and improvement as well as being held accountable for agreed upon transfer expectations (Gilley and Maycunich, 2000).

Holton *et al.*'s (2000) learning transfer system inventory (LTSI) conceptualizes a transfer system, with the work environment as one of the elements of that system. Testing of the LTSI across 1,616 training participants revealed construct validity of the model overall with three separate social support variables: supervisor support, peer support, and the extent to which people in one's group are open to changing and encouraging the application of training.

Adoption environment

Studies on transfer have also reviewed several characteristics of the post-training climate that can be paralleled to aspects necessary for the diffusion of innovation in organizations. Climates described as favorable for transfer of training are those in which there is an "appreciation for performance and innovation" (Burke and Baldwin, 1999, p. 229). However, we are aware of no other studies that have explicitly used a diffusion of innovation framework for studying transfer of training. Given the extent of research that Rogers' (1983) diffusion of innovation model has withstood, and the many similarities between adoption of innovation and transfer of training, it seems to be appropriate to use this model for studying training transfer. The diffusion of innovation model has uncovered five variables that explain a great deal of the variance in adoption of innovation. All of them seem pertinent to transfer of training: complexity, trialability, observability, compatibility and relative advantage.

Rogers (1983) defines complexity as the extent to which the innovation is perceived to be difficult to use and understand. Studies have shown that complexity, as it is perceived by members of a social unit, will be negatively related to adoption. In terms of training transfer, complexity relates to trainee's perceptions that applying the skills in their work environment will be complicated. By inference therefore, it appears that complexity may be negatively related to adoption and training transfer in unsupportive transfer climates but positively related to transfer in supportive environments.

Rogers describes trialability as the extent to which innovation can be experimented with prior to adoption. Huczynski and Lewis (1990) found that trainees in supportive environments that encourage experimentation had increased training transfer. Observability as defined by Rogers is the ability to see the innovation being used by others and observe the results of that innovation prior to adoption. This translates into the degree to which trainees can see others using the skills and knowledge from the course at work and the effects of their use. Compatibility refers to the extent to which an innovation is compatible with existing norms and procedures. This variable has been studied in other research on training transfer and is considered as one element in our "systemic forces" category, below.

Relative advantage is defined as the strength of outcomes received as a result of adoption of an innovation (Rogers, 1983). In terms of training transfer, the parallel definition for relative advantage can be the benefits that accrue to the trainee as a result of using the training at work. Relevant examples for transfer from Rogers' (1983) list of benefits that describe relative advantage are; a decrease in discomfort, time and effort savings and immediacy of rewards. As such, this relative advantage dimension represents personal value derived from the environment by applying training at work. This is consistent with what Holton *et al.* (2000, p. 344) refer to as personal outcomes-positive – "the degree to which applying training on the job leads to outcomes that are positive for the individual" in their LTSI model. While it is reasonable to expect that personal value will influence the extent of post-training transfer, given the focus here on the post-training environment, the authors have decided to view personal value as a self-reinforcing element of transfer – perceived value encourages utilization and utilization leads to perceptions of value – and examine which post-training variables influence it.

Overall, if the skills being transferred are viewed as an innovation, diffusion of innovation characteristics categorized here as elements of an adoption environment category, are worth exploring in attempting to understand the post-training environments that encourage transfer.

Continuity and maintenance

The continuity category describes characteristics of the post-training environment that support long-term maintenance of the learned capabilities. This category parallels what some transfer research refers to as relapse prevention – strategies designed to ensure that behavior change from training is maintained (Marx, 1982). In the post-training environment, recommended post-training strategies for continuity are goal-setting and feedback mechanisms (Noe, 1986; Richman-Hirsh, 2001; Santos and Stuart, 2003; Thayer and Teachout, 1995). Richman-Hirsh (2001) found that trainees motivated to set goals in the post-training environment will transfer training more than those that do not set goals. Goal setting and feedback implies having accountability for transfer built into the post-training environment (Noe, 2002). In their qualitative study of organizational factors affecting transfer, Tracey and Tews (1995) got feedback from 21 training professionals who emphasized the need for accountability if learned capabilities are to be maintained. Tracey and Tews (1995) also found that continued learning and external professional development opportunities facilitate transfer.

Situational context

The situation surrounding possible transfer events in the work environment may also affect the extent of training transfer. Whether opportunities even exist for applying training in the workplace is often cited as a condition for training transfer (Brinkerhoff and Gill, 1994; Cheng and Ho, 2001; Noe and Colquitt, 2002; Noe, 2002). Yamnill and McLean (2001) point out that cognitive learning is insufficient for transfer where participants do not have the opportunity to use their skills at work.

Opportunity to transfer refers to breadth (the number of trained tasks performed at work), activity level (frequency of use) and task type (the difficulty and criticality of the trained task) (Noe and Colquitt, 2002; Noe, 2002). It can be inferred from this, that the first instance of training application at work may affect continued opportunity to transfer. The effect of a trainee's first attempt to transfer training was included for analysis as a post-training element that may affect transfer.

Kupritz (2002) emphasized the importance of contexts, including the physical design or proximity of equipment, management and employees on trainees' motivation to transfer. Accordingly, the extent to which trainees begin to see opportunities for transfer in various situations may be a function of their being able to observe others who are located physically close to them apply the training at work. These situational variables surrounding transfer will be considered here.

Systemic forces

Finally, several organizational system/structural aspects have been discussed as necessary conditions for training transfer in the post-training climate. Elangovan and Karakowsky (1999) conclude that training transfer is directly related to continuous learning cultures that engage in training and development and encourage employee improvement and initiative. Other cultural measures such as employees' reactions

when training is applied, language use and congruence of the training with the organization's cultural norms and structure are also likely to affect transfer. This is the same as Roger's "compatibility" variable in his diffusion of innovation model reviewed above. Reward and incentive systems that support behavior change or are congruent with the trained behaviors are also necessary for continued transfer (Brinkerhoff and Gill, 1994; Mathieu and Martineau, 1997; Machin, 2002; Tracey and Tews, 1995). Furthermore, the availability of resources such as budgets, technology and personnel to support training are often cited as variables that facilitate transfer (Mathieu and Martineau, 1997; Kupritz, 2002; Noe, 1986).

Another significant characteristic of the organization found to effect transfer is system pressures and their impact on time (Mathieu and Martineau, 1997). Santos and Stuart (2003) found that a primary reason cited by managers for low transfer of training is lack of time due to fast-paced work environments and contexts. In these situations, managers typically fall quickly back on old patterns and habits.

Method and case description

The Centre for Excellence in Learning at VIHA, wished to assess the amount and type of transfer taking place from their leadership development program, "Leading in a Learning Organization" (LILO). VIHA is the government-funded organization responsible for all aspects of health care for all residents of Vancouver Island, British Columbia, Canada, a landmass of approximately 12,000 square miles with an estimated population of 750,000. VIHA has approximately 16,400 employees. The LILO training program was designed for leaders, managers and supervisors at VIHA as part of the organization's strategy of becoming a learning organization. The program was loosely based on Senge's (1990) five disciplines for creating learning organizations – systems thinking, personal mastery, shared vision, mental models and team learning. The goals of the program include: to help get results, shape culture, build leadership depth and improve leader effectiveness.

The resulting program, developed with external university and industry experts, was made up of six modules called, Laying the foundation, Clarifying aspiration, Developing clear leadership, Dealing with complexity, Creating shared vision and Back at work/celebration (see the Appendix). The program was intended to increase self-awareness and promote personal growth as well as provide skills for increasing organizational learning. Delivery was spread over nine months, including pre-work, 70 in-session hours, personalized coaching between course sessions and post-session assignments. After running a pilot group, the program was made available to senior and middle managers and later rolled out to the supervisor-level.

Given that the program focused on personal development as well as skill building and was researched and developed with experts in the field of leadership and organization development, it is reasonable to assume that the factors affecting training transfer in the pre-training and delivery process were adequately addressed and built into the program. In addition, post-course evaluations of the training program by trainees were outstanding. As a result, the LILO program presented a possible case for post-training transfer assessment with pre-training and process interferences controlled.

Study design

Exploratory research through in-depth case analysis was used to study how much the five broad clusters of possible training transfer predictors identified in the literature review influenced actual transfer of the training program. Case studies are the method of choice for exploratory research (Schwab, 1999; Yin, 1994). Following Eisenhardt (1989), we developed a priori constructs to guide the investigation but not any specific hypotheses and used a theoretical, as opposed to random sample. We targeted trainees who represented the various parts and levels of the organization and who had completed the LILO program at least six months prior to the study. Out of the 93 managers who had completed the program six months prior to the interviews, 30 were invited to participate and 21 agreed for a participation rate of 70 percent. We used multiple methods (interviews, surveys, and informed observers) to gather the most reliable information possible. Following the advice of Cheng and Ho (2001), the study included interviews with observers of trainees at work. Informed observers were defined as individuals who had worked long enough with the trainees (both before and after the trainee went through LILO), to be able to observe any changes in their work behaviors. As many researchers emphasize, using such a triangulation approach allows for stronger results as the qualitative and quantitative data allow for confirmation and corroboration of the research findings (e.g. Kupritz, 2002). All interview guides and surveys we developed were based on the five categories reviewed above. Interviews were also designed to provide open-ended opportunities to explore transfer of training and the post-training environment. Where possible, data from the interviews that could be coded into quantitative variables were constructed and added to the survey measures for further analysis.

The sample included four leaders at the regional director level, eight at the management level and nine at the supervisor/coordinator level. The interviews conducted with trainees lasted between 75 and 90 minutes. The survey, with a letter detailing confidentiality, was e-mailed to respondents prior to the interview. Surveys were returned to the researcher at the start of the interview that allowed for exploration of the meaning of their responses. To recruit observers, each trainee was asked to nominate two people that fit the definition of observers for this study. An email was then sent out to both individuals, briefly describing the study and requesting their participation. One was then randomly selected to be interviewed. A total of 20 observers were interviewed. Observer interviews took between 45 minutes and an hour.

Measures

Based on the five categories of social support, adoption environment, continuity and maintenance, situational context and systemic forces, a semi-structured interview guide for trainees and observers and a trainee survey were developed. The 20-question survey included two dependent measures of transfer, two questions measuring support, four measures for adoption, three measures for continuity, two measures for situational and seven measures for systemic variables. All the items in the survey were created by the researchers for this study. All survey items were measured on a five-point Likert scale with 1 being strongly disagree and 5 being strongly agree. The interview guide asked opened ended questions about each of the variables identified in

the literature review, asked for explanations of survey responses and asked for concrete examples of transfer.

The two dependent measures in the survey were one for utilization: "I have applied the skills and concepts from the LILO program" and one for relative advantage/personal value: "I have realized value from the training". We assumed judgments of value and utilization would be two facets of transfer. For utilization to occur, participants would have to feel that there was personal value in using the skills. While that seemed a reasonable assumption it also seemed to us that the opposite could also be true, that the degree of personal value could be a function of how much the training was utilized after the course. In either case we expected there to be a high correlation between the two items and they could be combined into one dependent measure.

Procedure and data reduction

The interviews were analyzed using content analysis (Strauss and Corbin, 1998). Each interview transcript was reviewed and responses to each question summarized into themes or, where applicable, yes/no responses. Where common themes appeared, a frequency count was done for the number of respondents following the identified theme. Where possible, these were converted into dichotomous variables (yes/no) and added to the survey data. In addition, trainee themes were paralleled to observer themes to analyze areas of overlap. Opposing views to the identified themes were flagged.

All 21 of the surveys returned were useable. The survey responses were analyzed using descriptive statistics and correlation matrices. As is common with new surveys, there were significant overlaps in the meaning respondents made of different measures. Following established conventions, because we make no theoretical claims about the direction of causality amongst the independent measures, we used two-tail tests to assess the significance of these relationships. In assessing significance of independent measures with the two dependent measures we used one-tailed tests. The correlation matrix for all the 20 items in the survey is shown in Table I and shows high correlations among some of the variables.

We wanted to ensure that separate variables were being used in the survey analysis. Conventionally this would be done by factor analysis but our sample was much too small for that, so following Davis (1971) we examined the correlation table, created plausible scales where there was high intercorrelation amongst all the items and tested them for reliability using Cronbach's alpha. This exercise yielded two clusters of variables, two simple combinations, and a handful of separate items. These scales and items were used for further analyses as described below.

As shown in Table II, the largest cluster, consisting of four survey questions was combined into a scale for the "social support" category. Boss support, position power, and further training were combined into a scale called "application incentives". Two items related to organizational structure had very high correlations and were combined into another systemic variable called "organization structure". Two other items, both about opportunities to use the training, were combined into a situational variable called "opportunity". Cronbach's alpha for all scales was greater than 0.8. The two dependent measures, actual utilization and personal value, however, did not have a strong enough alpha to retain as one scale and so were examined separately.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Transfer																			
2. Boss support	0.40*																		
3. Power	0.41*	0.67**																	
4. Personal value	0.51**	0.31	0.06																
5. Confident	0.35	0.09	0.14	0.59**															
6. Opport.	0.31	0.13	−0.01	0.10	0.32														
7. Creative	0.51**	0.37	0.13	0.33	0.33	0.70**													
8. Observed	0.55**	0.27	0.28	0.00	−0.12	0.11	0.39*												
9. All Staff	0.22	0.25	0.04	0.40*	0.03	0.13	0.24	0.00											
10. Further training	0.15	0.58**	0.64**	0.06	0.11	0.01	0.09	0.18	0.51**										
11. Career	0.31	0.04	0.08	0.33	0.32	0.31	0.40*	0.11	0.58**	0.36									
12. Account.	0.14	0.45*	0.19	0.36	0.04	0.08	0.00	−0.07	0.40*	0.26	0.26								
13. First attempt	0.27	0.08	0.34	−0.22	0.29	0.13	0.19	0.10	−0.21	0.34	0.00	−0.43*							
14. Systems/structure	0.31	0.50*	0.59**	−0.10	0.11	0.06	0.24	0.46*	−0.44*	0.16**	−0.11	−0.07	0.32						
15. Time	0.47**	0.38	0.50*	0.08*	0.13	−0.20	0.00	0.34	0.29	0.58**	0.36	0.14	0.42*	0.32					
16. Reactions	0.13	0.43*	0.18	0.49*	0.13*	0.25	0.37	0.00	0.38	0.32	0.25*	0.51**	−0.16	−0.01	−0.07				
17. Comfortable	0.67	0.16	0.09	0.44*	0.44*	0.53**	0.38*	0.20	0.21	0.11	0.39*	0.26**	0.13	−0.16	0.21	0.08			
18. Encouraged	0.28	0.47**	0.17	0.37	0.17	0.27	0.17	−0.06	0.29	0.13	0.02	0.80**	−0.15	0.09	0.15	0.56**	0.23		
19. Recognized	0.46*	0.57**	0.16*	0.25	−0.14	0.17	0.34	0.37	0.43*	0.30	0.17	0.57**	0.00	0.12**	0.45*	0.49*	0.30	0.72**	
20. Overall	0.02	0.51**	0.39*	0.04	0.08	−0.09	0.13	0.29	−0.36	0.07	−0.46*	0.27	0.00	0.64**	0.00	0.14	−0.27	0.38*	0.18

Notes: * $p \leq 0.05$ level; ** $p \leq 0.01$ level

Table I.
Correlation matrix for initial model

Social support	Application incentives	Organization structure	Opportunity
Accountable Q12. I have been held accountable for applying what I learned	*Boss support* Q2. My boss and others senior to me have supported me in applying the training	*System and structure* Q14. The organization systems and structures allow me to apply what I've learned	*Opportunity* Q6. I have had opportunities to apply the skills and concepts learned from this training
Reactions Q16. Employees reactions when I apply skills and concepts from the program have been positive	*Position power* Q3. My position in the organization hierarchy makes it easy for me to apply what I learned	*Overall* Q20. The organization culture, structure, policies and procedures have supported me in applying the training	*Creative* Q7. I have had opportunities to use what I learned creatively
Encouraged Q18. I have been encouraged to use the training I acquired from the program	*Further training* Q10. Further training opportunities are available to me in this organization		
Recognized Q19. I have been recognized and encouraged to apply what I learned			

Table II.
Variables combined to create scales

The items in each scale are shown in Table II. There is fairly good face validity to the combination and labeling of "social support", "organization structure" and "opportunity". "Application incentives" however, is a statistically reliable scale but requires more explanation. We discovered that "my position in the organization hierarchy makes it easy for me to apply what I learned" is not related to any particular function or level (as we originally intended), but means that one's circumstances in this organization at this time provide more or less encouragement to apply the training. Similarly, "further training opportunities are available to me" captures the level of encouragement for growth and change the person experiences. Thus the high correlation of these two items with "boss support". The "application incentive" variable can therefore be defined as the degree to which the trainee's supervisor and others higher in their direct power structure provide incentives for individuals to learn and to apply that learning at work.

The content analysis of the trainee interviews revealed that whether or not boss and peers had completed the LILO program consistently related to the level of willingness to transfer the LILO skills and concepts back on the job. As a result, two variables were created from the interview data, called "boss taken" the LILO program and "colleague taken". Each trainee interview was coded into "yes"/"no" for both variables. "No" responses were assigned the value 1, while "yes" responses were assigned the value 2.

The data reduction and the creation of the new variables resulted in a total of 13 quantitative variables on which further analyses were performed to test for congruence with the qualitative findings. The resulting 13 variables and working definitions for training transfer and personal value are presented in Table III. The n is too low for the

Variable	Description
1. Training transfer	Apply LILO skills and concepts in the workplace
2. Personal value	Has perceived personal value from the training
3. Boss trained	Have boss who's taken the LILO training
4. Colleague trained	Have colleagues who've taken the LILO training
5. Confident	Is confident to use skills and concepts at work
6. Observed others	Seen others use LILO skills and concepts at work
7. All staff	Have training rolled-out to all employees
8. Career	View LILO skills as useful for career development
9. First attempt	Had a successful first application experience
10. Time	Has had time to apply LILO training
11. Comfortable	Is comfortable using language from LILO at work
12. Social support	Has support to transfer from recognition, accountability, reactions and encouragement to LILO training at work
13. Application incentives	Has encouragement and incentives to apply LILO training
14. Organization structure	View organization culture, systems and structure as supportive of LILO training
15. Opportunity	Has opportunities to use LILO skills and concepts and do so creatively

Table III.
Variables in reduced data set

kind of regression or path analysis that would be desirable to further explore questions like ours. Therefore, given the exploratory nature of our study, we rely here on our interview results to really uncover and understand transfer environment and use correlation and partial correlational analyses to validate our interview findings.

Results

Level of transfer

Asked whether they have applied the skills and concepts they acquired from the LILO program, 19 of the 21 participants gave a strongly positive response, with specific examples of where or how they had applied skills and concepts from the training. This was echoed during the observer interviewees, with 16 of the 20 observers giving specific examples of where they had seen changes in trainees' work behavior after the LILO program. The descriptive statistics from the survey are shown in Table IV. On the five point Likert scale, the average utilization score for the sample was 4.38 (out of a possible 5) with a standard deviation of 0.59. Personal value was rated even higher at 4.86 with a small standard deviation of 0.359.

What transferred

The content analysis showed that training from the "developing clear leadership" module was the most transferred. The frequency count showed that 18 out of the 21 trainees interviewed made direct references to having used skills that they learned as part of the clear leadership training module. The other components of the training program that appeared to lead to changed behavior at work were the self-awareness and the systems thinking components of the training. There were six direct references to self-awareness module resulting in changed behavior, though many of the trainees implied that the entire program had resulted in an increased understanding of themselves or an aspect of their behavior patterns. Five of the interviewees discussed the potential usefulness of the systems-thinking component of the training. The

Variables	Mean	Standard deviation
Training transfer	4.38	0.59
Personal value	4.86	0.36
Boss trained	1.52	0.51
Colleague trained	1.71	0.46
Confident	4.10	0.54
Observed others	4.00	0.78
All staff	4.38	0.74
Career	4.48	0.60
First attempt	4.00	0.63
Time	3.48	0.75
Comfort	4.00	0.63
Social support	3.37	0.84
Application incentives	3.98	0.76
Organization structure	3.26	0.85
Opportunity	4.24	0.66

Table IV.
Descriptive statistics for reduced data set

Notes: $n = 21$; All five-point scales except boss trained and colleague trained which are two-point scales

observer interviews yielded rich evidence of transfer of the skills and concepts from the LILO program and had no significant flagged differences from the trainees' responses. Observers confirmed that the components of the training that resulted in changed behavior were clear leadership and self-awareness.

As predicted and confirmed in the quantitative findings, there was a significant correlation between personal value and utilization of skills on the job (Table V). However, the magnitude of the correlation (0.51) was less than expected and the content analysis showed clear and for the most part different patterns in the variables that facilitated utilization and effected personal value. We will look first at what effected utilization and then what effected judgments about personal value.

What facilitates utilization of training

Given that trainees believe the skills they have learned are useful and could improve their leadership success (which everyone in this sample did), actual use of the training seems to be most effected by the need to believe that their actions are understood and acceptable to others. Listening to the post training experience of these managers, the most significant barriers to inserting new leadership behaviors into an organization appear to be the existing norms, expectations and mental maps of other employees – in a word, the organization's culture. Manager's felt far more willing to try using the skills when they believed they would be accepted and much less willing when they believed they would be ridiculed or shot down. The survey item most related to utilization was "I feel comfortable using the language I learned in my work environment" (0.67). When respondents discussed their responses to this item they referred to whether others would embarrass them or look at them strangely if they tried to have the kinds of conversations taught in the LILO program. Respondents described how much easier they found using the skills when others involved in the interaction had also taken the course.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Transfer														
2. Personal value	0.51**													
3. Boss trained	0.47*	0.43*												
4. Colleague trained	0.24	0.34	−0.18											
5. Confident	0.35	0.59**	0.17	0.31										
6. Observed Others	0.55**	0.00	0.25	0.14	−0.12									
7. All Staff	0.22	0.40*	0.37	0.33*	0.03	0.00								
8. Career	0.31	0.33	−0.04	0.51*	0.32	0.11	0.58**							
9. First attempt	0.27	−0.22	0.00	−0.17	0.29	0.10	−0.21	0.00						
10. Time	0.47*	0.08	0.10	0.27	0.13	0.34	0.29	0.36	0.42					
11. Comfortable	0.67**	0.44*	0.15	0.34	0.44*	0.20	0.21*	0.39	0.13	0.21				
12. Social support	0.31	0.43*	0.31	−0.07	0.06	0.08	0.45*	0.20	−0.21	0.20*	0.26			
13. Application incentives	0.39*	0.18	0.37	0.27	0.13	0.28	0.28	0.16	0.28	0.54*	0.14	0.42		
14. Organization structure	0.19	−0.04	0.24	−0.05	0.11	0.42	−0.45*	−0.31	0.19	0.19	−0.23	0.17	0.50*	
15. Opportunity	0.46*	0.26	0.28	0.15	0.35	0.29	0.21	0.39	0.18	−0.09	0.48*	0.27	0.17	0.13

Notes: Columns 1 and 2 use one-tailed tests, columns 3-15 use two-tailed; *$p \leq 0.05$ level; **$p \leq 0.01$ level

Table V.
Correlation matrix – revised data set

Contrary to the interview data, whether peers had taken the course did not correlate with transfer. However that may have been due to a lack of variability. A total of 81 percent of the respondents reported that they worked physically close to other trainees who had been through the program. In the interviews, respondents emphasized that physical proximity to other trainees not only increased their motivation to transfer, but also created an avenue for peer support, the development of mentoring relationships and the fostering of an open and safe environment to share the common language from LILO. The change in working relationships that this creates is expressed by one respondent this way:

> there's one person who's physically close to me . . . [and] we are able to talk to each other and understand each other better. It's increased our respect for each other. I think it's increased our openness with each other and safety. I don't think I've ever worked with anybody in my 20-some odd years of working that I've ever felt safer with as a result of this . . . I can totally be myself . . . you can come in and say 'okay I'm just gonna say this and I feel like I'm being silly, but I'm just gonna say it' . . . and it's nice to be able to do that.

Unlike for peers, whether one's boss had taken the course did correlate with utilization at a fairly high level (0.47). The qualitative analysis showed that trainees were particularly strong on transferring their training when their bosses had both been through the LILO program and were actively engaged in practicing the LILO skills and concepts. They described how discussions, coaching and personal engagement from their bosses facilitates continued learning and engagement with the new skills.

The support trainees feel to transfer soft skills was strongly effected by whether they were surrounded by others who had been through the training. Verbal encouragement was nice and appreciated but could not necessarily overcome fears of violating peer group norms. One specific way in which having a boss and colleagues go through the same training effects transfer is the highly motivational effect of watching others use the skills and knowledge from the training. Asked the effect of observing others use the new skills, 19 of the 21 trainees spoke of it having a motivating, inspiring, positive effect on them that encouraged utilization and increased comfort in doing so. Survey data support this showing a significant 0.55 correlation between utilization and observing others. The strongest reaction to observing others seemed to come from those trainees who saw positive results ensue when the LILO skills and concepts were applied and were strongly encouraged by the impact of the process.

A significant impact on utilization was the common idea that since the organization had spent money on them, there was an obligation to use what had been learned. The size and scope of the LILO program was unprecedented in trainees' experience. Several of the trainees made a point of saying that they were motivated to transfer their training because the organization had "invested" in them and, given resource constraints facing healthcare, showed commitment to their development. This effect seemed to be amplified in instances where the opportunity to attend the training required sponsorship from one's supervisor. This is echoed in the significant correlation between application incentives and utilization (0.39). It is as though norms of reciprocity are engaged when training is seen as lavish or top quality and this motivates trainees to use it.

The only completely non-cultural post-training variable that appeared to impact utilization was simply having the time to apply what has been learned. Only ten (48 percent) of the trainees gave absolute yes answers in response to the question of

whether they had time to apply their training. An additional five of the trainees made a point of stating that they had made time to apply the training despite the busyness of their work environments. The remaining six trainees talked about the difficulty of maintaining the training in the current crisis situation the organization was in and emphasized that these conditions made it easy for them to revert to old work habits. Survey data show that having time correlates 0.47 with utilization.

Finally, the significant relationship in the survey between "opportunity", a situational context variable, and utilization was explored. Trainees stated that there were clear opportunities for application for the various skills and concepts from the LILO program at VIHA – but this seemed to be more about the utility of the skills and less about the nature of the situation at work. As we did with all variables significantly related to our dependent measures, partial correlations were examined and the results showed that the "comfort in using the language" variable explains the correlation between "opportunity" and utilization, with the correlation between them falling from 0.46 to −0.07 when "comfort" is controlled for. On the other hand, opportunity did not have much effect on the relationship between comfort and utilization. This means that it is the variance that "opportunity" shares with "comfort" that explains the effect of "opportunity" on utilization. In other words, if people are comfortable using the skills, they will create opportunities to transfer the training. Aside from one other partial correlation discussed in the section on personal value, no other second order correlation explained any of the other relationships in this data set.

In summary, it appeared that organizational culture, a "systemic forces" variable in our categorization scheme, explained most of the variance in utilization of this leadership training program. One of the adoption environment variables, observing others, also had an important impact. Having a boss who had also taken the training impacted utilization positively. Application incentives, a kind of boss support measure, appeared to be important and finally, one other systemic variable, time to use the skills, played a role. None of the other variables reviewed in our literature survey emerged as significant.

Variables only influencing personal value

We expected respondents' ratings of the statement "I have realized value from the training" to combine with "I have applied the skills and concepts of the LILO program" but they did not form a reliable scale even though they are correlated at .51. One way in which they are different is that some respondents told us that they had gotten value from the program's personal development and interpersonal skills even if they did not apply them at work. But it was also clear from the interviews that finding the training of value increased motivation to try to use the skills at work. When we tried to understand what post-training variables influence trainees' experience of personal value different variables emerged from those effecting utilization.

Overall, it appears that people's sense of the value of the training is influenced by the support and encouragement they receive from others. The judgments they have about the value of the training is affected by the judgments they hear from others. This is reflected in the significant correlation between personal value and social support (0.43). The social support scale included items on receiving recognition, accountability, encouragement and positive reactions from the system. Trainees reported that the reactions to use of the new skills and concepts have generally been positive, though six

of the trainees also reported that initial attempts at using the training resulted in some surprise or skepticism. A total of 18 of the trainees reported being encouraged in their work environment either because of the results they witness or the support they receive from managers and colleagues who have taken the training.

Most respondents thought it would be a good thing for all staff to receive the training program. While that did not correlate with utilization it did with personal value (0.47). It would be reasonable to assume that respondents thought it would be good for others because of the value they had personally received, but the relationship between these variables was a little more complex. As managers and leaders in the organization, trainees saw the potential benefits to themselves in rolling out the training to others, describing things like increased job satisfaction, decreased discomfort and stress, less wasted time and energy, increased ability to work with others and increased ability to focus. In addition to personal benefits, 11 trainees cited benefits to the organization related to everyone having a "common language," including a general increase in the ability to work together, better communications and a less toxic work climate. All the trainees stated that they had received no recognition or acknowledgement for using the skills and concepts beyond feedback from their workgroups and the personal satisfaction they feel when the training is successfully applied. The interview data suggest therefore, that in this case, the correlation found between personal value and support may be mainly a result of the positive reactions and encouragement received from others who have taken the program and that rolling out the program to more employees is seen as a way to increase personal value.

As with utilization, comfort in using the language was significantly correlated with personal value in the survey. But partial correlation showed that to be a spurious relationship. Through the analysis, it became evident that "I am confident to use the skills" explains the relationship between "personal value" and "comfort". When the partial correlation between them was run controlling for confidence, the relationship went down to a non-significant 0.25, while the correlation remained significant when the partial correlation between personal value and confidence was run controlling for comfort. This shows that it is confidence, not comfort that leads people to experience the training as being of personal value. Confidence was conceptualized from the outset as a social support measure, in that a person's confidence to use new behaviors would depend on the social support they received. There was strong consensus among trainees with regard to confidence. A total of 20 of them stated that they were confident in applying the LILO skills and concepts, but mainly at their own level and below, not in relation to their superiors. Exploring this phenomenon of confidence with peers and subordinates further during the interviews, most of the trainees stated that they were concerned that the organization is still very hierarchical with traditional management built into the organization systems. Trying to increase organizational learning conversations with their superiors, they feared, held more risks and required more skill. It appeared that trainees were mostly confident in using the LILO skills and concepts with the people they know and those without positional power over them.

In summary, the post-training environment that seemed to have the most impact on trainees' judgments about the value of the training was the social support they received from others and the confidence this gave them about their skill level. While none of these variables had a direct correlation with actual utilization of the skills, personal value did, suggesting important indirect effects.

Discussion

This study found strong evidence of transfer of training and was able to identify specific variables affecting that transfer. Examining the variables that were theorized to affect training transfer from the literature review and comparing them to interviews and the revised survey data set revealed areas where this study supports previous research and where new questions arise.

As emerged in this research, cultural support for new skills and social support are actually two different things and appear to effect transfer differently. The study found that it is less the conscious or planned attempts to support trainees' use of the skills, and more the unconscious, unplanned patterns and norms surrounding trainees that encourage or inhibit the use of newly learned soft skills at work. This is further supported by the lack of significant correlation between social support and utilization in the survey.

Support has traditionally been operationalized as having a boss and peers that are supportive of trainees applying the training (Baldwin and Ford, 1988; Huczynski and Lewis, 1990). In this case, it seemed that supporting others increased people's judgments about the value of the training, but it was actually having others go through the training, particularly one's boss, that increased actual utilization of the new leadership skills. The LILO program gave managers new ways of thinking and managing that were, in the experience of trainees, counter-cultural. The importance of "comfort in using the language" from the training in predicting utilization highlights the cultural nature of this training and of leadership in general. The greatest barrier to utilization was the fear of non-acceptance from others in the organization. This study supports Brinkerhoff and Gill's (1994, p. 9) assertion that peer pressure to conform to pre-existing norms is the bane of transfer of training: "The workplace can untrain people far more efficiently than even the best training department can train people". Instead of thinking of leadership as a personal phenomenon, we might better think of it as a contextually embedded set of behaviors. How one exercises leadership is influenced by the context in which one acts. The effect of leadership on organization culture has been widely studied but the effect of organizational culture on leadership has hardly gotten any attention (House *et al.*, 1999). We suggest HRD professionals think of transfer of leadership training as an intervention into an organization's culture and plan accordingly. While it is generally agreed that having management support is necessary for the successful implementation of organization initiatives, it appears from this study that more than just support is required – senior managers must take the training too and be perceived to be "walking the talk".

Closely related, Rogers' (1983) observability variable proved to be significant in affecting utilization of the training. This supports Kupritz's (2002) assertion that transfer is a function of trainees' proximity to other people who have been through the training. The strongest reaction to observing others seemed to come from those trainees who saw positive results ensue when the LILO skills and concepts were applied and were strongly encouraged by the impact of the process as illustrated in the following examples:

> I watched others respond to the way one person in a meeting did it [clear leadership concepts] perfectly. It was very powerful. The issue was dealt with in 5 minutes. The impact of this is that when there is clarity, people get the message better and things get done ...

> I've seen others use it in meetings, not consciously using it, but seen them work around the experience cube and seen the tone of the meeting change … It's good, it has reduced the amount of stories by [us] trying to explore what people are thinking, we have cut stories and we are getting the job done quicker.

> In one situation where there was lack of clarity …[we] didn't make headway until we used clear language … [the result] was 40 minutes of interpersonal mush and 5 minutes of clarity.

The implication of this for leadership training is that transfer will be best supported where there is a critical mass of people going through the training around the same time, so that evidence of transfer will be visible to trainees. In addition, providing training that is perceived as expensive, top quality and a real investment in trainees increases motivation in managers to use the training back on the job. Overall, one message HRD professionals might take from this when they consider leadership development in their organizations is go big or go home. Since having one's boss take the training significantly impacts utilization and judgments of value, a "water-fall" type of rollout, with senior managers getting the training and then proceeding sequentially through the hierarchy to the supervisors, may be the most effective. This may be particularly true of leadership training as leaders model the leadership norms and are best situated to change culture (Schein, 1992). Managers controlling training budgets are advised to carefully consider the trade-offs between cost and mass rollout of quality soft-skills training and the implications for training transfer.

Opportunity to transfer the training has been described by Cheng and Ho (2001), Noe and Colquitt (2002) and Noe (2002) as a key transfer variable. Though opportunity to transfer was described as important for transfer by trainees, survey data suggest that it is really people's comfort and willingness to use the new skills that explain utilization and that those who are comfortable will find the opportunities to do so, at least as far as leadership training goes. It raises questions about what kinds of training are really effected by opportunity and how transfer opportunities are perceived and utilized.

Having time to use the new skills was significant in transfer, supporting the finding by Santos and Stuart (2003) that time was a primary explanation given by managers for low transfer. The importance many in our sample gave to making time, however, raises questions about the degree to which time is a convenient excuse for lack of utilization. These days, for many managers, time is a precious commodity. Perhaps it takes high personal value for people to want to find the time. Even still, high-pressure jobs like some of those in our sample can drive out even the best of intentions. Senior line managers are therefore advised to think of ways of assisting leadership trainees in making time to practice the training. HRD staff can facilitate after training activities that provide opportunities for further development of trainees. Trainees in our sample were asked what after training activities would be useful and interesting to them in applying the training and the majority of them (14) responded that formalized refreshers on the whole or part of the program would be most engaging. Trainees emphasized that other obligations competed with attending informal post-training sessions, making them difficult to attend, but that formalized sessions would be seen as more of a priority by others and that would increase the likelihood of attendance.

Finally, this research found some interesting things about personal value as another outcome of a supportive post-training climate that effects utilization and suggests areas for further study. They are related but separate outcomes of transfer. Interviews

provided evidence that in a program such as this, personal value can come without necessarily utilizing the skills at work. Many of the trainees reported a change in their personal perspectives and attitudes as a result of the program. As one put it:

> it has been highly enlightening, inspiring and motivational. It has changed how I look at my life, which is profound. It is my first conscious step into spiritual awakening ...

Personal value is also revealed in the personal changes trainees are making. One trainee reported spending hours after the LILO program reflecting on life and creating a clear personal vision and mission as a result of the values exercise conducted during the program. Several trainees are pursuing further development through continued coaching and two of the trainees explored opportunities to return to school and pursue degree programs to get them closer to their personal vision. On interviewee reported that two colleagues who took LILO left the organization as a result of the journaling exercise. One trainee reported expanding roles while another reported taking on a more challenging position within VIHA as a direct outcome of the clarity of their personal vision after the LILO program. Three other trainees reported increased confidence in their abilities and a resulting drive to move into higher management roles. We took these statements as examples of personal value but not examples of actual utilization of the skills taught in the program.

Personal value and utilization are probably self-reinforcing. They seem to be influenced by somewhat different things in the post-training environment. We suspect that some of the judgments about personal value precede utilization and come from experiences during the training itself. Afterwards, those judgments are influenced by observing others using the skills and by personal experiences of utilization. Apart from having a boss who has gone through the training, personal value was correlated with variables that were not directly related to utilization. They all seemed to have more to do with social support as conventionally defined – getting encouragement and rewards from one's peers and boss. This suggests that in future studies of transfer of soft skills we need to look at these two outcomes of training differently and do a better job of understanding the cause and effect of judgments about value and actual utilization.

Turning to limitations of the study, we note one unusual aspect of this case was the level of transfer. Training transfer and personal value average ratings were extremely high at 4.38 and 4.86 respectively, with relatively small variance in the ratings. Virtually everyone agreed that aspects of the LILO program had transferred to the workplace. This is particularly significant given that it is generally cited that only 10 percent of training transfers into the workplace and raises issues about the generalizability of our findings. Reviewing the descriptive statistics for the reduced set of variables in Table IV shows that the means for the individual items that affect utilization (boss trained, observed others, time, comfort, and application incentives) are all higher than the midpoint of the scales they are measured on. As such, the high transfer can be attributed to the high results for the individual variables that affect it. However, in addition to the empirical evidence shown here, this high level of transfer could be attributed to some case-specific factors that were not controlled for and create limitations for this study.

First, it could be argued that the high level of training transfer in the LILO program was the result of it being well designed and implemented. As shown in transfer

literature and discussed above, transferability of training is a function of the pre-training environment, the implementation process and the post-training environment. Transfer, therefore, is influenced at all three stages of training delivery. Though this study analyzed the case from the perspective of the post-training environment, the positive results may be due to the effective pre-training process and implementation of the training. For example, the last two hours of the LILO program are spent on planning training application strategies when trainees go back to work (see the appendix). As is known, such goal setting, self-management and similar interventions that occur at the end of training are effective in creating increased transfer of training into the workplace (Richman-Hirsh, 2001). Single case studies such as ours cannot discern relative impacts of course design and implementation on post-training variables.

Second, the high level of personal value trainees have derived from the course might be due to the nature of the course content. The course content was highly personal and was geared towards facilitating a change in leadership at VIHA through the personal growth and development of the leaders. This type of intensely personal training is rare and might be called risky to the extent that leadership programs within organizations are usually not as personal as this. As one trainee summarized it:

> I am amazed. I have seen lots of courses given for staff over the years and they are usually much more focused on output or a skill set, but I have never seen a course have such an impact on people at a personal level. It is amazing and life-changing … and an unusual experience to get in a work-supported course …

This intensely personal aspect of the course may be the most important reason why transfer was so high in this case. As such the unusually high level of transfer may not be due to the post-training elements we studied. The inability to untangle pre-training and training effects from post training effects is a limitation to generalizability of this study.

There are also a couple of sample biases associated with this case study that should be acknowledged. First, the trainees who participated in this study may not be representative of the population that went through the training. They, like almost all samples, self selected themselves for this study and we do not know what biases are inherent in that. It may be that those who got the greatest value from the program were most eager to talk about it. Second, those who have taken the training to date may not be representative of those who will go through the LILO program in the future. The trainee participants here are, for the most part, the early adopters of leadership training. As people who volunteered for this kind of leadership training, they are probably the most willing and motivated to learn and experiment with the LILO skills and concepts during, and as evidenced here, after the program. In addition, the fact that observers were selected by trainees may have introduced some selection bias if trainees who want to appear to have transferred learning may have been biased towards choosing observers who are more likely to report that trainees had used the LILO skills and concepts.

Because very little research exists on transfer of leadership training at a time when leadership training is an area of increasing importance to organizations, we think the study bears noting regardless of these limitations. The personal growth nature of the training (program design and implementation) may interact with post-training transfer variables in ways that make our findings specific to only those kinds of soft skill

training programs. We suspect, however, that any leadership training that encourages behaviors at odds with the dominant organizational culture will find similar important predictors of utilization. These include the importance of spreading the training in ways that ensure trainees have like minded colleagues in the workplace and are able to observe others using the new skills and attitudes and the importance of having one's superiors also take the training. In addition it alerts us that positive judgments about the value of the training do not of themselves ensure utilization and that variables that influence judgments of value may be different from those that influence utilization.

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(The Appendix follows on the next page).

Appendix

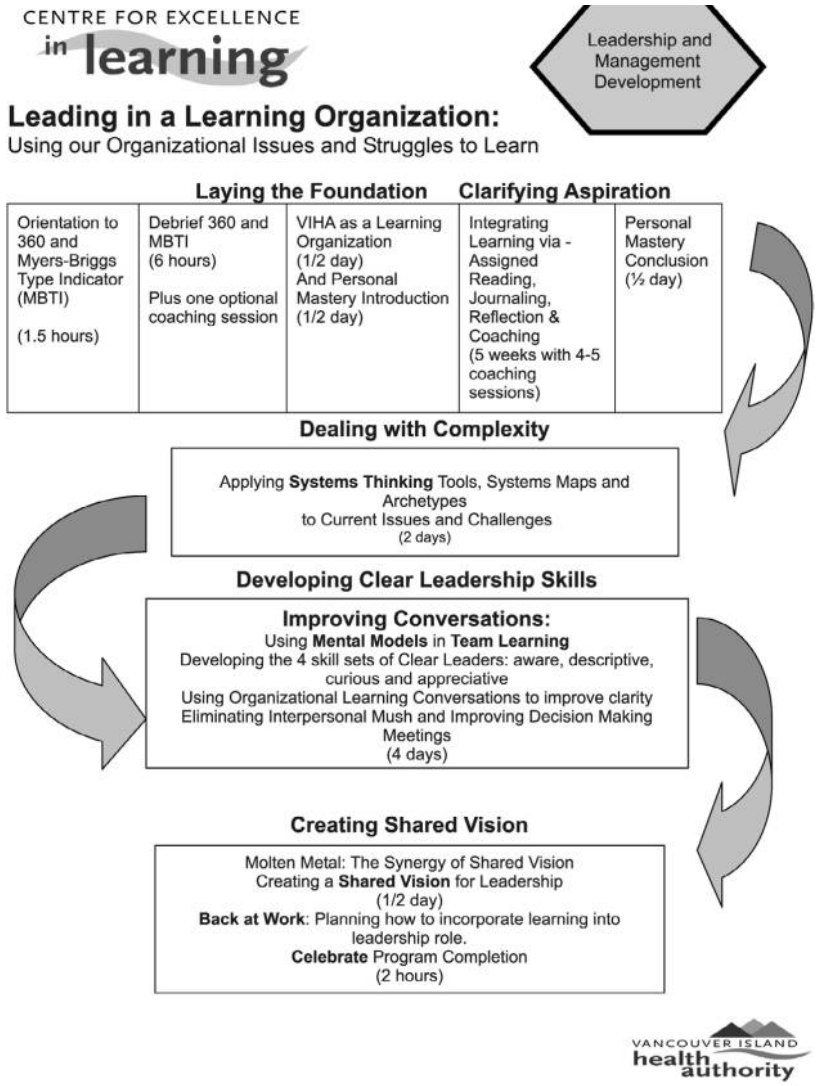

Figure A1.
"Leading in a learning organization" model

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