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A STUDY OF THE RELATIONSHIP BETWEEN INSTRUCTIONAL METHODS AND LEARNING STYLES IN LEARNING LEADERSHIP SKILLS

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Abstract *In the present dynamic and interwoven workplace, leaders have an important role in steering the organisations towards higher performance and yielding competitive edge. Besides being the backbone of an organisation, leaders support effective forward momentum in organisations. At times when it is implicit that leadership is something that can be learnt or at least be improved by learning, leadership training is significant. Leadership training is one of the most important training for building a strong workplace and organisational success. In order to excel at workplace, today managers are generally provided leadership skills, especially communication skills to manage the diversity in an organisation. A case study approach was adopted to explore the relationship between instructional methods and learning style on learning performance in leadership skills training. Results of a 4 × 3 ANOVA revealed significant main effects for instructional methods and learning styles. However, the interaction effect was found to be insignificant. Implications of the findings of the study have been discussed in detail.*

Keywords: *Leadership Skills, Training, Instructional Method, Learning Style*

INTRODUCTION

Emerging from an industrial age, the people-centred new economy is witnessing dynamic changes in the backdrop of modern workplace. More than ever before, organisations today are placing great value in their people for gaining competitive advantage. With companies going global, the rapid growth of knowledge and the swift changes in technology, the key asset of any organisation is its people-the employees. This renewed interest of organisations towards their employees is aptly summarized in the words of Krohn (2000) that "people are the only assets with the creativity and adaptive power to sustain an organisation's success in today's dynamic business world".

In order to achieve a competitive edge, employees need to learn constantly (Alonderiene, 2009; Zuzeviciute and Tereseviciene, 2009) and faster (Kian and Sabbaghan, 2012) in their professional life. As such training of employees in critical skills is crucial to the success of any organisation. In order to cater to the demands of the changing times, leadership training that focuses on developing effective leaders to accomplish business goals is a vital necessity for any organisation for achieving competitive advantage (Collins, 2002). Leaders have the potential to create a climate of engaged workplace with more productive employees and fewer labour problems, thereby helping transform the entire organisation.

With increasingly dynamic work environment and the emergence of disparate generations working together, corporate world over are realizing the importance of leadership skills to manage the dynamics of workplace. As leadership is strongly connected with the ability to motivate and inspire other people to achieve results, therefore studies indicate that organisations need to develop such skills in employees in key positions for communicating, motivating and inspiring others towards organisational success. As such today's leaders need to provide mentoring and support to their group, develop empowered workforce engaged in trust-initiated roles (Allert and Chatterjee, 1997) and move beyond the concept of "a genius with a thousand helpers" towards a real leveraged leader.

With the increasing need for key professionals to learn leadership skills, there is a concurrent need to explore the best approach to prepare them in acquiring these skills in an effective and efficient way. Literature suggests that the choice of training method has consequences on the degree of learning (Knight and Salter, 1985; Webster and Martocchio, 1993; Petrakova and Sadana, 2007). Moreover, the broad diversity of individual differences among potential trainees has a viable impact on learning (Chou, 2001; Salas and Kosarzycki, 2003) and should be considered while developing training programs (Sein, Bostrom and Olfman, 1987; Chou and Wang, 1999; Liu and Reed, 1994). Researchers have also found that an understanding of the

learning style distribution is essential to improve the quality of instructional strategy.

Besides demographic differences, a prominent concept of individual differences is *learning style*. Studies reveal that individuals differ in the way they approach a learning situation (Desmedt and Valcke, 2004; Reid, 2005; Burnett, 2005) with some learners preferring certain methods of learning more than others (Shell, 1991). Therefore, for effective learning to take place, it is critical to consider the learner's characteristics in the design, development and delivery of a training programme (Buch and Bartley, 2002). Furthermore, several studies indicate that a correlation exists between performance and the method of instruction matched to the preferred learning style (Benham, 2002; Terrell, 2002; Manochehr, 2006).

With solid knowledge about the potential of leadership skills training and impacts of trainees' different characteristics, trainers can adopt training methods most suitable for improved training outcomes. The present study explores several important training issues related to the acquisition of leadership skills. First, the relative effectiveness of the three instructional methods - blended learning, role-play and videos cum discussion with respect to learning performance is assessed. The effect of individual difference (learning style) on learning performance is considered next. The last objective is to use an inter-actionist psychology perspective to examine the impact of individual differences and training methods on learning performance. In short, this paper also intends to assess the feasibility of a contingency approach to training leadership skills.

The remainder of this paper is structured as follows. Section 2 presents a review of literature along with the study hypotheses. Section 3 deals with the research model, the research methodology and the procedure followed in testing the hypotheses. The analysis and findings of the data collected in the study is presented in section 4 and the conclusions drawn from the study in section 5. Finally in section 6, the implications of the findings and recommendations for future research are discussed.

Literature Review

What is Leadership?

As a concept, leadership has generated a proliferation of literature, especially in the field of management and organisational science (Jones, 2005; Lyne de Ver, 2008). One of the prominent scholars of leadership, Barnard Bass (1990), has described leadership as a "universal phenomenon" which incorporates "the process of influencing the activities of an organized group in its efforts toward goal setting and goal achievement" (Stogdill, 1950). In the words of Davis (1942), leadership is "the principal dynamic force that motivates and coordinates the organisation in the accomplishment of its objectives".

In an organisational context, leadership can be referred to "the ability of an individual to influence, motivate, and enable others to contribute towards the effectiveness and success of the organisations of which they are members" (House *et al.*, 2004). In this sense "leadership transforms followers, creates visions of the goals that may be attained, and articulates for the followers the ways to attain those goals" (Bass, 1990). In short, leadership is "the ability to handle men so as to achieve the most with the least friction and the greatest cooperation" (Munson, 1921).

The contemporary interdependent and dynamic workplace places great importance on leaders, as change agents these agents of change (Bass, 1990). They are considered to possess the potential to manage the fast breaking change with their leadership skills and help navigate their organisation towards a safer and more profitable harbour. As for the majority of the workforce, the most relevant leadership comes from the first-line supervisors, who have a direct contact with employees and can influence their day-to-day performance more than managers at other levels (Thompson, 2007). This has led the emergence of training in leadership skills, especially for managers.

Training in Leadership Skills

The current organisational scenario provides a work environment rich with development potential and has ushered in new expectations for leaders – from increased scope of responsibility to heavier workloads to making decisions in more ambiguous conditions (Orr and Sack, 2009). In order to succeed managers need to learn a set of leadership competencies to achieve ''breakthrough'' employee performance, leading to ''breakthrough'' results for the organisation (Trinka, 2005). Moreover, the process of becoming a better leader is fundamentally grounded in personal transformation (Van Velsor and McCauley, 2004), which necessitates the role of organisation to support and encourage training in leadership skills.

Leadership training focuses on enabling leaders to achieve business goals through people by creating relationships, sharing experiences and supporting others (Howard, 2005). Studies indicate that learning is at the heart of leadership (Burgoyne, 1994; Antonacopoulou and Bento, 2003) as real leaders must be active and aggressive learners (Mclagan, 2002) as well as possess the ability to learn from their experiences and remain open to continuous learning (McCall, 1998). Leadership training is essentially oriented towards personal growth (Conger, 1992) that focuses on improving a leader's knowledge, skills, and attitudes (Bass, 1990).

Researchers like Bass *et al.* (1996) and Sogunro (1997) have found significant improvement in the leadership behaviour of managers after attending a leadership training programme. Albert Einstein said, "I never teach my pupils. I only attempt to provide the conditions in which they can learn". So leadership training can be used to develop competencies and instil confidence in managers by providing a place where they may try things out, learn, watch reactions and interactions, develop theories as also test them (Orr and Sack, 2009).

Van Ameijde, Nelson, Billsberry and Van Meurs (2009) hold the view that leadership is a shared influence process that 'arises from the interactions of diverse individuals'. The development of leadership skills is important for leader's to communicate the vision and overall strategy of the organisation to his followers. In addition to the conceptual skills, leaders need to develop strong interpersonal skills. Such skills range from communication and team work to conflict management and cultural sensitivity (Elmuti, Minnis and Abebe, 2005). Research has identified communication skills to be one of the most essential components for effective leadership with 43% of respondents considering communication skills as the most critical skill set, while 41% acknowledging that inappropriate use of communication is the primary mistake leaders make (Ken Blanchard Companies, 2006).

Trinka (2005) suggests that leadership effectiveness can be improved by 50-60 percent, if focus is placed on leadership skills for 'developing others' and 'communication'. In their study, Mabey and Thomson (2000) also report that the skills that will be most needed in this century by leaders will be the 'softer' skills - leadership, people management, team working and customer focus. Thus, the basic skills that have been identified for effective leaders include interpersonal skills, building trust, motivating others and building strong relationships (Allert and Chatterjee, 1997; Astin and Astin, 2000; Crosbie, 2005; Martin, 2005; Thompson, 2007).

In order to assess the improvement in the learning performance of the trainees after the training, the following hypothesis ($H1A_0$) is suggested:

$H1A_0$: *There is no significant difference in the learning performance of participants based on the pre-test and the post-test scores.*

Training Methods

Although studies have been conducted to investigate the efficiency and effectiveness of the different training methods, results of the studies has been inconsistent as to which instructional method is "optimal" (Salehi *et al.*, 2009). In order to cater to the needs of the multi-generational workforce in today's organisations, trainers need to adopt a method which is convenient and relevant for the learner, cost effective for the employer and motivational in helping the learner transfer skills and knowledge to the work environment (Sinniah, 2008). Given the abundance of delivery methods, both old and new, it is essential to compare the common traditional methods with the quickly evolving, new methods in order to determine their effectiveness and suitable use in a particular circumstance.

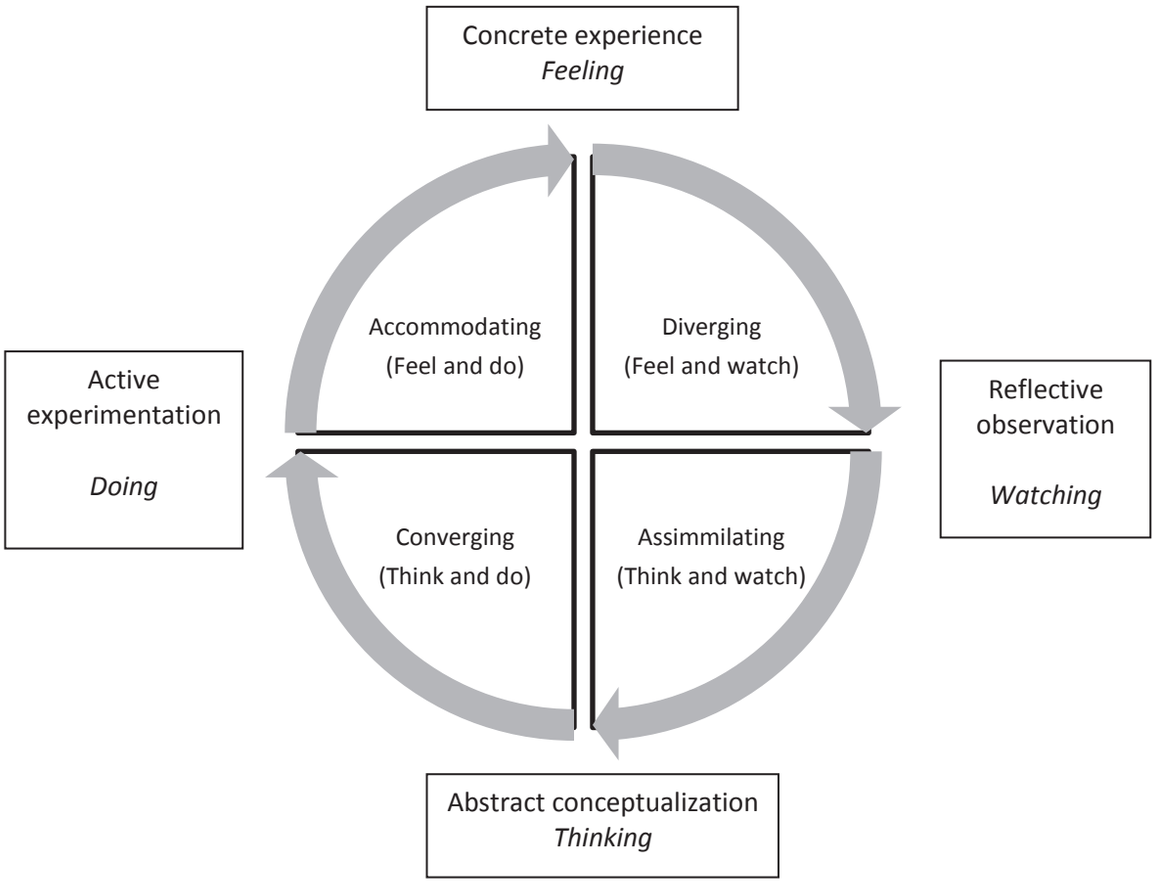
Training in leadership skills may be conducted in a classroom, online, coaching/ mentoring or a blended approach. Effective training can help enhance leadership skills that people possess, help them unearth skills they didn't even realize they had and enables one to see how they react under stress as also how they interact with others. Research in the field of leadership development suggests that certain methods have stronger effects on particular learning outcomes than others (Miller, Umble, Frederick and Dinkin, 2007).

Findings from published studies indicate that for leadership training, methods like seminars and discussions, intensive feedback and personal coaching, readings, challenging work assignments with coaching, mentoring, and action learning assignments (Young and Dixon, 1996; McCauley and Hughes-James, 1994; Conger and Benjamin, 1999; Rothwell and Kazanas, 1999; Vicere and Fulmer, 1998) may be used. Raelin and Coghlan (2006) suggest that for declarative as well as procedural knowledge for improving leadership skills, seminars may be an important method. While Raelin (2006) notes that action learning increases an understanding of group dynamics and promotes the development of interpersonal skills, which could also contribute to the development of partnerships. In addition, literature also suggests that using multiple methods increases learning for individual participants and, ultimately, outcomes for organisations (Miller *et al.*, 2007).

At the same time, it is important to create a safe learning environment where individuals can try, fail and try again without great risk or fear. Moreover, the learning environment should incorporate active involvement as also mimic the stresses found in the real world. Crosbie (2005) states that achieving this balance is one of the greatest challenges of training and critical to its success. Today's knowledge workers have evolved beyond the monotonous work environment into an autonomous scenario where at every level of the organisation one needs to work with and through people. Such flat organisations demand workers to be proficient in soft skills (Brungardt, 2011) such as communication, interpersonal and teamwork skills. Dynamic organisations acknowledge that the most critical skill for leaders is communication skills which aids in motivating, inspiring and informing others (Facey, 2002). Moreover, the ability to communicate well is seminal for a skilled and effective leader. The present study is therefore, specifically oriented towards the development of communication skills in leaders, as it is most critical to the success of a leader's role.

For the present study three different training methods were adopted for comparison – blended learning, role-play and videos with discussion.

Figure: 1. Kolb's Learning Modes and Styles



One of the most suitable methods for communications training is role-playing (Wagonhurst, 2002). It provides an excellent platform for the participating trainees to practice team interaction and develop empathy skills (Sanders, 2011). Blended learning approach helps promotes critical thinking, problem solving, communication and collaboration (Pape, 2010). It also fosters social interaction (Osguthorpe and Graham, 2003) and provides learners with greater control over the pace of learning and time management (Chung and Davis, 1995). Thus, blended learning approach provides social interaction that human beings seek and enjoy, besides leveraging the convenience and accessibility of online components with traditional classroom instruction (Voci and Young, 2001). Videos along with discussion provides an active learning platform as researcher like Mishra (2001) and Tooth (2000) assert that training videos are useful to illustrate practical and real life activities while group discussion aids in verbal interaction (Padilha, 2006). Given that certain training methods result in greater learning, this study intends to explore the viable differences in learning outcomes as a result of adopting different instructional approaches. The following hypothesis ($H2A_0$) is suggested:

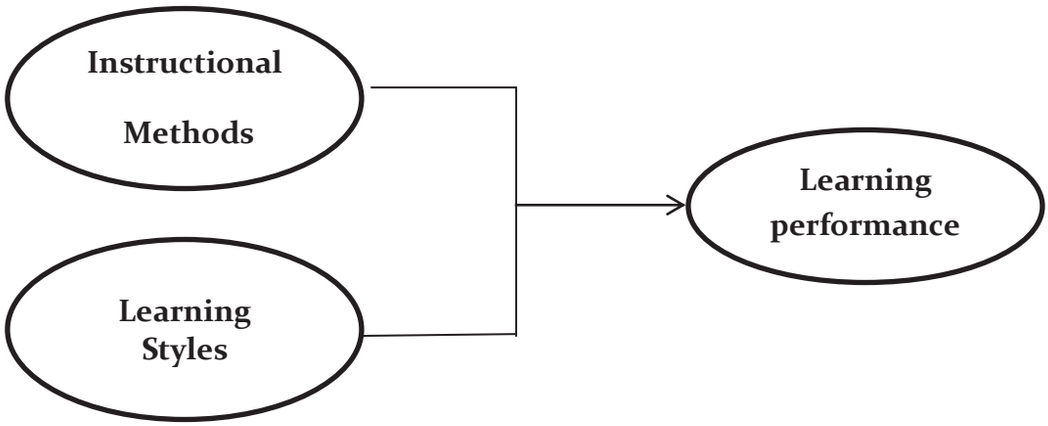
$H2A_0$: *There is no difference between the mean learning performances of trainees in the two instructional groups.*

Learning Styles

Educational psychologist are of the view that a one-size-fits-all approach does not exist in education (Melis and Monthienvichienchai, 2004; Felder and Brent, 2005) and individuals inclination towards a particular approach to learning situation has effect on their performance and achievement (Cassidy, 2004). Several researchers have found that an understanding of the learning style distribution is essential to improve the quality of instructional strategy. Therefore, for effective learning to take place, it is critical to consider the learner's characteristics in the development, design and delivery of a training programme (Buch and Bartley, 2002).

Learning styles should be considered by training managers (Bohlen and Ferratt, 1993) as it provides important information to the trainers (Buch and Bartley, 2002) about both individual learning, and learning as a group in the classroom and/or organisational environment. An

Figure: 2. Conceptual Model of the Study



understanding of the learning styles of the learners facilitates the instructor or designer to develop a curriculum to address diverse needs of the learners (Pallapu, 2007) and aids them in the proper selection of techniques and methods of instruction (Alfonseca *et al*., 2006) to suit the preferences of the different individuals.

Kolb Learning Style Inventory (LSI) is one of the most influential and widely used instruments (Kolb, 1976, 1984) to measure an individual's learning preference (Lu, Jia, Gong, and Clark, 2007; Wilson, 2012). His model of learning style has survived examination and criticism over the years and is used extensively to categorize the way learners take in and process information (Liang, 2012).

Figure 1 shows the schema of Kolb's (1976) learning style, including diverger, assimilator, converger, and accomodator, by using combinations of the learning modes. Kolb's theory and his LSI was chosen for this study because his theoretical perspective focuses on the interaction between the learner and the learning environment (Kolb and Kolb, 2005) which is similar to interest to this study as to whether students' learning style influenced their performance with different training methods.

Research in the domain of leadership development holds the view that individual learning style is a valid predictor of the success of such training programmes (Allinson and Hayes, 1988; Mainemelis, Boyatzis and Kolb, 2002, Van der Sluis and Poell 2002; Wyrick 2003). Moreover, Ugur, Akkoyunlu, and Kurbanoglu (2011) propose that "in order to enhance the quality of learning, [the] first step should be [to] analyze their [adult learners'] learning styles". This suggestion is important, due to the fact that "not every manager needs the same kind of leadership training content or methodology because not every manager exercises the same learning style" (Belasen and Frank, 2008). So, the next hypothesis ($H3A_0$) relates to the effect of learning styles in learning performance as:

$H3A_0$: *There is no difference between the mean learning performances of trainees of different learning styles.*

Interaction Effect of Training Methods and Learning Styles

Saks, Haccoun and Belcourt (2010) contend that trainees with different learning styles are likely to prefer different training methods (e.g. lecture versus role-play) and will differ in terms of the training method that will maximize their learning. In the field of research, the application of learning styles in education and learning is based on the concept of aptitude-treatment-interaction (ATI) research (Cronbach and Snow, 1977) which aims to design instruction to accommodate individual differences and to assess the feasibility of a contingency approach to training. In separate studies, Brown (2002) and Postle and Sturman (2000) suggest that learning style is central to student success of online programmes. While studies by Loomis (2000) and Dunn (2001) state that learning styles do affect learning; yet, some researchers found that there is statistically no significant relationship between learning style and learning performance (Zacharis, 2010 and Liang, 2012).

$H4A_0$: *There is no difference in the learning performance of trainees in the lecture, videos cum discussion and role-plays, based upon their individual learning style.*

Research Methodology

This study was guided by the research model presented in Figure 2. The model includes two independent variables (training method and learning style) and one dependent variable (learning performance). Learning style and training method are each posited to directly impact learning performance.

The conceptual research model includes the following variables.

Training methods: Three training methods were considered for comparison. Being the most common verbal training method, lecture was considered to be part of this study. It generally involves the help of accomplished leaders who present lecture on various leadership topics based on experience. add a sentence after '.....experience' - Since in the contemporary scenario lectures are generally supplemented with technology-based methods, so for the present study as well a blended approach was considered (lecture and online). Another common method used in leadership training that allows the leaders-in-training to participate and interact with learned leadership skills such as interpersonal communication is role-play. The third method adopted in this study was observation of videos followed by group discussion. This provided a platform for leaders to share their personal wealth of knowledge and experience with other novice members of the group.

Learning style: The two dimensions of learning style from Kolb's experiential learning theory (1985) are employed: information perception and information processing, which give rise to the four learning styles- Accommodating, Diverging, Assimilating and Converging.

Learning Performance: Based on the second level of training evaluation (Kirkpatrick, 1967), this dimension evaluated the extent of learning of the participants. A knowledge test was designed with 15 questions based on the objectives of the training programme, and the participants were graded on the degrees of correctness to these questions.

Subjects

The participants of the study comprised of managers who were working in a pharmaceutical manufacturing unit. Forty-seven employees were trained in the key leadership skills required for managing relationships and facilitating effective communication in the workplace to ensure smooth production and a positive work environment. In order to compare the effectiveness of alternative modes, three methods were adopted, and the employees were randomly assigned to each of these three groups. Seventeen employees were assigned to the blended learning group, fifteen to videos cum discussion session and fifteen to the role-play session. The gender break down shows that 70.2% of the trainees were male while 29.8% were female. By age, 36.2% of the trainees were under 30; 53.2% were between 30- 45 and 10.6% were over 45.

Research Design

The study used a pre-test/ post-test experimental case study design for assessing the relationship between learning styles, training methods and learning performance. Case study is an appropriate strategy for individual researchers because it gives an opportunity for one aspect of a problem to be studied in some depth within a limited time scale (Bell, 1999) and when it is not possible to have large samples.

The participants of this study were employees who were to be trained at a training institute in Ghaziabad, Uttar Pradesh. A convenience sampling method was used to select the participants for this study. The participants selected for the purpose of this study were then randomly assigned to the three instructional groups.

Statistical Techniques

The data collected in the study, through various questionnaires were keyed into SPSS (Statistical Package for Social Sciences) software, version 16.0. In order to test the hypothesis, two-way/ factorial ANOVA was employed. Since both the predictor variables are categorical, ANOVA could be used to test their effect (Frazir, Tix and Barron, 2004) on the continuous dependent variable, learning performance. Learning performance was obtained from the difference of the pre and post test scores of the trainees. Furthermore, factorial ANOVA is used to address research questions that focus on the difference in the means of one independent variable when there are two or more independent variables.

Procedure

A total of 47 employees who were to be trained in the key leadership skill of communication were selected. They were randomly divided in three groups and each was provided training through different training methods (blended learning, role-play and videos with discussion). One trainer undertook the training for the three groups at separate time interval. Each participant was to complete the Kolb's learning style inventory and the knowledge test prior to the training. Further, upon the completion of the training, the participants were to complete the knowledge test again, for deriving the learning performance scores of each trainee (the difference of pre-test and post-test scores).

Data Analysis and Results

Reliability measures for Kolb's learning style and knowledge test questionnaire were assessed by Cronbach α coefficients

as shown in Table 1. The reliability coefficients have been found to be greater than 0.70. Nunnaly (1978) and Howitt and Cramer (2003) suggest that the value of coefficient alpha for scale reliability of 0.70 or higher is widely acceptable in social sciences.

The result of the paired t- test (Table 2) shows that there was a statistically significant increase in the overall performance scores of trainees from pre-test (M = 6.53, SD = 1.213) to post-test (M = 8.17, SD = 1.204), t (46) = -11.375, p < .05 (two-tailed).

Table 1: Reliability coefficients of LSI-1985 and Knowledge test

Factors	Cronbach's Alpha
Active experimentation	0.79
Reflective observation	0.71
Concrete experience	0.83
Abstract conceptualization	0.81
Knowledge test	0.85

The mean increase in overall performance scores of trainees was 1.638 with a 95% confidence interval ranging from -1.928 to -1.348. Consequently, we reject the null hypothesis, $H1A_0$, and we have sufficient evidence to conclude that there was an improvement in the performance of trainees after the training intervention.

The finding of improvement in learning, supports the meta-analytical research by Collins and Holton III (2004) on the benefits of managerial leadership development programs which including 83 studies published between 1982 and 2001. They found that mean *d*s (comparing training with no training) ranged from 0.96 to 1.37 for knowledge outcomes. Moreover, Eckerman *et al.* (2004) also found that the paired t-test showed a significant improvement from pre-test to post-test with a large (0.8 or above per Cohen) effect size for learning performance (d = 1.09).

Of the 47 participating trainees, sixteen were found to be divergers, eleven each possessed accommodating and converging learning style, while nine trainees were found to be assimilators.

An important assumption of ANOVA is the homogeneity of group variance which was assessed through Levene's test. It is found to be statistically insignificant at $\alpha = 0.05$, F (11, 35) = 1.210, p = 0.317, indicating that this assumption underlying the application of the two-way ANOVA has been met. Therefore, there is sufficient evidence to say that there exists no difference in variances between the group means.

The main effect for method of instruction is found to be statistically significant, F (2, 35) = 5.383, p = 0.009. Since the p value is less than 0.05, so we reject the null hypothesis, $H2A_0$, that the learning performance of the trainees in the three instructional groups is different. That is, there is sufficient evidence to conclude that training imparted through blended, videos with discussion and role-play approach have different mean learning performance. This result adds weight to the finding of McCann (2006) and Burkman (1994), who observed a statistically significant

Table 2: Paired Samples Test

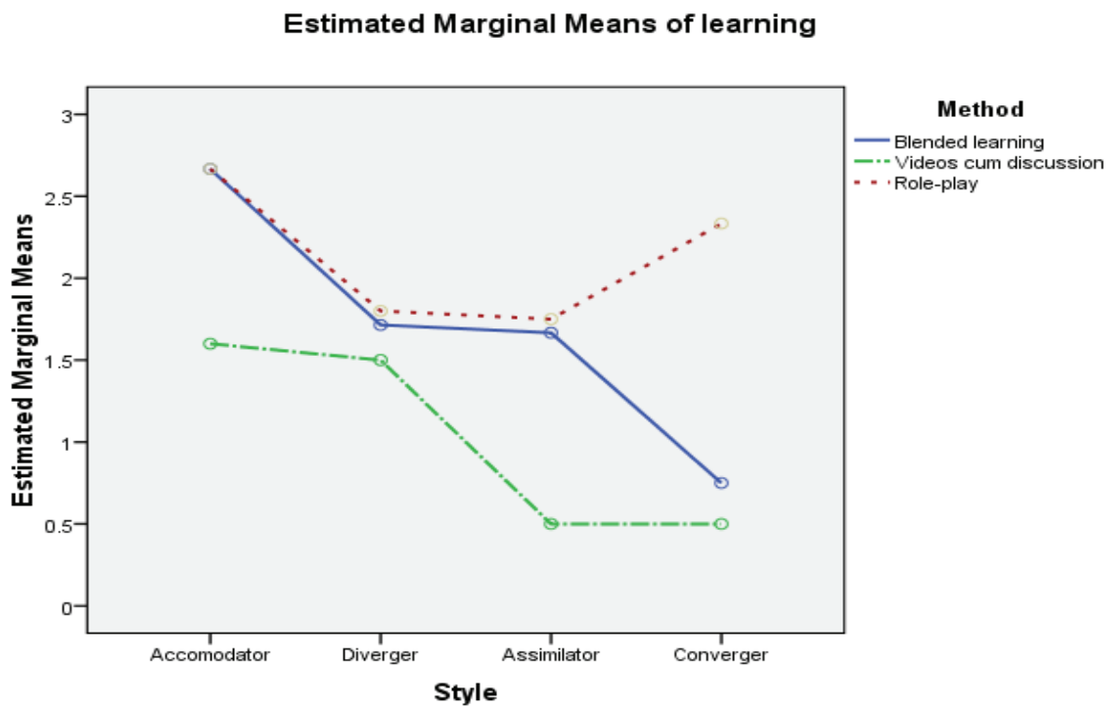
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre-test – post-test	-1.638	.987	.144	-1.928	-1.348	-11.375	46	.000

Table 3: Summary of ANOVA

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Method	8.642	2	4.321	5.383	.009
Style	7.765	3	2.588	3.224	.034
Method * Style	4.385	6	.731	.910	.499
Error	28.095	35	.803		
Total	170.000	47			
Corrected Total	47.106	46			

a. R Squared = .404 (Adjusted R Squared = .216)

Figure 3: Graph of Interaction Effect



difference in the performance of participants in different learning environments.

In addition to the significant main effect of training methods, Table 3 indicates a significant main effect for learning style, F (3, 35) = 3.224, p = 0.034. Thus we may reject the null hypothesis, $H3A_0$ that is there is adequate evidence to conclude that the mean performance of the trainees with the four different learning styles differs considerably. This conclusion is borne up by numerous studies and more specifically by Chou and Wang (2000), Manochehr (2006), Abidin *et al.* (2011) and Damavandi (2011), which illustrated that learning performance yielded a significant main effect for the four learning styles.

However, we find an insignificant interaction between training methods and learning styles, F (6, 35) = 0.910, p = 0.499. Therefore we fail to reject the null hypothesis $H4A_0$, thus indicating that the combined effect of methods of instruction and learning styles results in negligible differences in the learning performance of the trainees (see Figure 3 for a graph of this interaction). Since the lines are nearly parallel to each other, therefore, we find no interaction effect in this study.

This evidently supports the work of previous researchers like McCann (2006) that it is very difficult to consistently replicate and validate an interaction between a learner's style and specific instructional methods (Larsen, 1992; Hajizainuddin, 1999). This could be attributed to distinct individual variables of the trainee and/ or the instructional environment, which are difficult to control. Moreover, the trainees were randomly assigned to the three groups. It may be that if they were permitted to participate in groups which employed their preferred method for training, the interaction effect could plausibly have been significant.

Since both the independent variables indicated a significant effect, so we need to consider assessing the "main effect", that is the effect of one of the independent variables on the dependent variable, while ignoring the effect of the other independent variable(s). Post hoc test helps to explore the differences among means after a significant F-test with a factor that consists of three or more levels. Fisher's LSD was conducted to break down the main effect of the three training methods.

It is observed that participants who received training through role-plays had a comparatively higher mean learning (M= 2.137) than those who received training with blended method (M= 1.699) and videos cum discussion approach (M=1.025), F (2, 35) = 5.383, p = 0.009. While trainees in the blended learning and role-play approach showed nearly similar learning performance, those in the videos cum discussion group showed much lower learning, especially significantly lower than role-plays (From Table 4).

Table 4: LSD Post hoc for Training Methods

(I) Method	(J) Method	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Role-play	Videos cum discussion	.93*	.327	.007	.27	1.60

*. The mean difference is significant at the .05 level.

Table 5: LSD Post hoc for learning styles

(I) Style	(J) Style	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Accomodator	Converger	1.09*	.382	.007	.32	1.87

*. The mean difference is significant at the .05 level.

This observation supports the Meta analysis by Burke and Day (1986) of the different training methods and their effect on the utility and performance of trainees. It states that the different training methods result in differential learning outcomes, but not to the point of being statistically significant. Here also we observed that only one pair showed a significant difference, but not the others.

It was found that the participants with accommodating (M= 2.311) style outperformed those with assimilating (M= 1.306), diverging (M= 1.671), and especially converging style (M= 1.194), F (3, 35) = 3.224, p = 0.034. Regardless of the training method employed, the only significant difference was observed in the learning performance of trainees with accommodating and converging style (From Table 5).

Finally, it is observed that the mean scores for the accommodators are higher than the other three learning styles and (significantly) specifically the convergers. This accentuates the findings that in organisations, accommodators are generally found in "action-oriented" jobs (Kolb and Fry, 1975 and Patrick, 2005) and prefer to work with others, take risks besides enjoying new experiences (Kolb, 1981; Kolb, 1984; Kolb and Kolb, 2005; Richmond and Cummings, 2005). In contrast, the convergers tend to specialize in technical and applied sciences, deal with technical tasks and problems rather than social and interpersonal issues (Kolb and Fry, 1975; Kolb, 1976; Richmond and Cummings, 2005; McLeod, 2010). Moreover, the convergers are practical by nature and prefer working alone (Kolb, 1984; Schaller, Borun and Allison-Bunnell, 2007; McLeod, 2010).

Conclusions

In times when developing leaders remains one of the greatest challenges for organisations, identifying the most effective training method(s) for leadership skills training is imperative. Since effective communication skills of leaders help them to articulate organisational goals and objectives, which permit active participation of employees thereby creating trust and healthy working relationships at every level within an organisation (Ken Blanchard Companies, 2006). Consequently, the present study was related to training upcoming leaders (managers) in communication skills.

The results of this research paper reveal that for training in leadership skills the role-play method is one of the most suitable approach as it provides a motivating and realistic setting for learning. Saks, Haccoun and Belcourt (2010) and Sanders (2011) also hold similar view and propose that role play is one of the most suitable methods for communication and interpersonal skills training (a key leadership skill), as it provides an excellent platform for the participating trainees to practice team interaction and develop empathy skills. In addition, trainees with accommodating style were found to excel in leadership skills training as they are known to be risk takers and prefer to work with others. Moreover, they place great value in relationships, which is critical to the success of a leader.

At the end, it can be said that this study provides a preliminary support to the notion that individuals tend to perform differently in different environments, prefer certain training methods to others. Furthermore, the study contends that learning styles also have a significant influence on learning performance. Apart from the significant training method and learning style effect, the interaction effect failed to reach the significance level, though the data are suggestive of certain useful trends that merit further investigation.

Implications and Suggestions for Future Research

The study has presented a lucid framework of the relationship between instructional methods and learning styles as well as their interaction on learning performance. The findings of this research have several important implications for employee

training and performance improvement. Primarily, an understanding of the different training methods and learning styles, provide the trainers with information regarding the appropriate use of a particular method for trainees with a particular style. As individuals differ in their approach to learning, so such knowledge is beneficial for greater learning outcome. Besides, today's workplace demands cost effective approaches to training and so such decisions regarding the selection of the appropriate training method will help consider cost effectiveness as also the rate of return in terms of business outcomes.

Future research may replicate the findings that emerged in this study to a greater sample size to effectively validate and generalize the results. Researchers may seek to investigate the influence of demographic, cultural and other individual variables on both preferences for a particular instructional method, learning style and learning performance. In addition, similar case study investigations could be replicated in other sectors of the industry, and cross industrial as well as cross cultural studies may also be undertaken. Studies of this nature would provide valuable insight to organisations and HRD practitioners. Finally, a recommendation for future research includes longitudinal studies which will provide more conclusive evidence in terms of outcomes of training, that is, effect on transfer of training or return on investment levels with respect to various instructional methodologies and learning styles.

References

Abidin, M. J. Z., Rezaee, A. A., Abdullah, H. N. & Singh, K.K.B. (2004). Learning Styles and Overall Academic Achievement in a Specific Educational System. *International Journal of Humanities and Social Science*, *1*(10), 143-152.

Alfonseca, A., Carro, R., Martín, E., Ortigosa, A., & Paredes, P. (2006). The impact of learning styles on student grouping for collaborative learning: a case study. *User Model User-Adap Inter, 16* (3), 377-401.

Allert, J. R. & Chatterjee, S. R. (1997). Corporate communication and trust in leadership *Corporate Communications: An International Journal Volume*, *2*(1), 14-21.

Allinson, C.W., & Hayes, J. (1988). The learning styles questionnaire: an alternative to Kolb's Inventory. *Journal of Management Studies*. *25*(3), 269–281

Alonderiene, R. (2009). The impact of managers' informal learning on enterprise performance results (summary of doctoral dissertation). *Social Science, Management and Administration (03S).* ISM University of Management and Economics, Kaunas.

Antonacopoulou, E. P., & Bento, R. E. (2003). *Methods of 'Learning Leadership': Taught and Experiential.* In J. Storey (ed.) Leadership in Organizations: Current issues and key trends. London: Routledge.

Astin, W. A., and Astin, H. S. (2000). *Leadership Reconsidered: Engaging Higher Education in Social Change.* Retrieved from http://www.wkkf.org/Pubs/CCT/Leadership/Pub3368.pdf Atkins, P.W.B., & Wood, R.E.

Bass, B., Avolio, B., & Atwater, L. (1996). The transformational and transactional leadership of men and women. *Applied Psychology: An International Review, 45*, 1, 5-34.

Bass, B. M. (1990). Bass & Stodgill's Handbook of Leadership: Theory, Research, and Managerial Application. New York: Free Press.

Belasen, A., & Frank, N. (2008). Competing values leadership: Quadrant roles and personality traits. *Leadership and Organization Development Journal*, *29*(2), 127- 143. doi: 10.1108/01437730810852489

Bell, J. (1999). *Doing Your Research Project*. Buckingham: OUP.

Benham, C. (2002). Training effectiveness, on-line delivery, and the influence of learning style. *Proceedings of the 2002 ACM Special Interest Group on Computer Personnel Research Conference,* 41-46. Kristiansand, Norway.

Bohlen, G. A. & Ferratt, T. W. (1993). The effect of learning style and method of instruction on the achievement, efficiency and satisfaction of end-users learning computer software. *Proceedings of the 1993 Conference on Computer Personnel Research*, 273-283. ACM Press.

Brown, D. (2002). Interactive teaching. *Syllabus*. *15*(6), 23.

Brungardt, C. (2011). The Intersection between soft skill development and leadership Education. *Journal of Leadership Education, 10*(1), 1-22.

Buch, K., & Bartley, S. (2002). Learning style and training delivery mode preference. *Journal of Workplace Learning*, *14*(1), 5-10.

Burgoyne, J. G. (1994). Managing by learning. *Journal of Management Learning, 25*(1) 35-55.

Burkman, T. (1994). An analysis of the relationship, achievement, attitude, and sociological element of individual learning styles of students in an interactive television course. *Unpublished Doctoral Dissertation*, Western Michigan University.

Burnett, N. (2005). *Leadership and SEN*: *Meeting the Challenge in Special and Mainstream Settings.* London: David Fulton.

Cassidy, S. (2004). Learning styles: An overview of theories, models, and measures. *Educational Psychology, 24*(4), 419-444.

Chou, H. W., & Wang, Y. F. (1999). The effects of learning style and training method on computer attitude and performance in WWW page design training. *Journal of Educational Computing Research. 21*(3), 323–342.

Chou, H.W., & Wang, T. B. (2000). The influence of learning style and training method on self-efficacy and learning performance in WWW homepage design training. *International Journal of Information Management, 20,* 455-472.

Chou, H.-W. (2001). Effects of training method and computer anxiety on learning performance and self-efficacy. *Computers in Human Behavior*, *17*, 51-69.

Chung, J., & Davis, I. K. (1995). An instructional theory for learner control: Revisited. In M. R. Simonson (Ed.). *Proceedings of the 1995 Annual National Convention of the Association for Educational Communications and Technology,* Anaheim, CA:AACE, 72–86.

Collins, D. B., & Holton III, E. F. (2004). The effectiveness of managerial leadership development programs: A meta-analysis of studies from 1982 to 2001. *Human Resource Development Quarterly, 15*(2), 217-248.

Collins, D. B. (2002). *The Effectiveness of Managerial Leadership Development Programs: A Meta-Analysis of Studies from 1982-2001* (Doctoral dissertation*)*. Louisiana State University and Agricultural and Mechanical College. Louisiana State University.

Conger, J. A. (1992). *Learning to Lead: The art of Transforming Managers into Leaders*. San Francisco: Jossey-Bass.

Conger, J. A., & Benjamin, B. (1999). *Building Leaders: How Successful Companies Develop the Next Generation.* Jossey-Bass: San Francisco, CA.

Cronbach, L. J. & Snow, R.E. (1977). *Aptitudes and Instructional Methods: A Handbook for Research on Interactions*. New York: Irvington Publishers Inc.

Crosbie, R. (2005). Learning the soft skills of leadership. *Industrial and Commercial Training, 37*(1), 45-51, DOI 10.1108/00197850510576484

Damavandi, A. J., Mahyuddin, R., Elias, H., Daud, S. M. & Shabani, J. (2011). Academic achievement of students with different learning styles. *International Journal of Psychological Studies, 3*(2), 186-192.

Davis, R. C. (1942). *The Fundamentals of Top Management*, New York: Harper.

Desmedt, E., & Valcke, M. (2004). Mapping the learning styles jungle. An overview of the literature based on citation analysis. *Educational Psychology*, *24*, 445–464.

Dunn, R. (2001). Learning style differences of nonconforming middle-school students. *NASSP Bulletin*, *85*(626), 68–75.

Eckermana, D. A., Abrahamsonb, K., Ammermanb, T., Ferchob, H., Rohlmanb, D. S., & Anger, W. K. (2004). Computer-based training for food services workers at a hospital. *Journal of Safety Research*, *35*, 317– 327

Elmuti, D., Minnis , W., & Abebe, M. (2005). Does education have a role in developing leadership skills? *Management Decision, 43*(7), 1018-1031.

Facey, J. (2002). Effective communication: skills that make leaders stand out from the crowd. Retrieved from http://www.ceoforum.com.au/article-detail.cfm?cid=6128&t=/Jo-Anne-Facey--Mercer-Human-Resource-Consulting/Effective-communication-skills-that-make-leaders-stand-out-from-the-crowd/

Felder, R. M. & Brent, R. (2005).Understanding Student Differences. *Journal of Engineering Education*, *94*(1), 57-72.

Hajizainuddin, A. M. (1999). A study of learning styles and hypermedia's organizational structures in a Web-based instructional program designed for trainee teachers at the international Islamic University Malaysia (unpublished doctoral dissertation). University of Pittsburgh, Pittsburgh.

House, R. J., Hanges, P. J., Javidan M., Dorfman, P. W., & Gupta, V. (2004) Culture Leadership and Organizations: The GLOBE study of 62 Societies,. Thousand Oaks, CA: SAGE Publications.

Howard, C. (2005). *A Three-tiered Approach to Leadership Training: Using blended learning to drive culture and leadership*. Bersin & Associates

Howitt, D., & Cramer, D. (2003). *A Guide to Computing Statistics with SPSS 11 for Windows. Revised edition*. Harlow, Pearson Education Limited.

Jones, A. M. (2005). The anthropology of leadership: Culture and corporate leadership in the American South. *Leadership, 1*, 259-278.

Ken Blanchard Companies. (2006). *Critical Leadership Skills: Key Traits That Can Make or Break Today's Leaders*. San Diego: Ken Blanchard Companies.

Kian, N. T., & Sabbaghan, S. (2012). The relationship between gardner's Multiple intelligence and Kolb's learning style. *International Journal of Knowledge and Systems Science (IJKSS)*, *3*(3), 52-59.

Kirkpatrick, D. L. (1967). Evaluation of training. In R. L. Craig (Ed.). *Training and Development Handbook: A Guide to Human Resources Development.* New York: McGraw-Hill.

Knight, J. B. & Salter, C.A., (1985). Some considerations for hospitality training programs. Cornell Hotel and Restaurant Administration, 25, 38-43. doi: 10.1177/001088048502500409

Kolb, A. Y., Kolb, D. A. (2005), Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning & Education*. *4* (2), 193-212.

Kolb, D. (1976). Management and learning processes. *California Management Review*, *18*(3), 21-31.

Kolb, D. (1984). *The Experiential Learning: Experience as the Source of Learning and Development*. Englewood Cliffs, NJ: Prentice Hall.

Kolb, D. A. (1981). Experiential learning theory and the Learning Style Inventory: a reply to Freedman and Stumpf. *Academy of Management Review, 6*(2), 289–296.

Kolb, D., & Fry, R. (1975). Towards an applied theory of experiential learning. In C. L. C. (Ed.), *Theory of group process*. London: Wiley.

Krohn, R. A. (2000). Training as a strategic investment. In R. W. Herling & J. Provo (Eds.), Strategic perspectives on knowledge, competence, and expertise. San Francisco: Berrett-Koehler.

Larsen, R. E. (1992). Relationship of learning style to the effectiveness and acceptance of interactive video instruction. *Journal of Computer-Based Instruction*, *19*(1), 17-21.

Liang, J. S. (2012). The effects of learning styles and perceptions on application of interactive learning guides for web-based courses. *Proceedings of the 2012 AAEE Conference*, Melbourne, Victoria.

Liu, M., & Reed, W. M. (1994). The relationship between the learning strategies and learning styles in a hypermedia environment. *Computers in Human Behaviour*, *10*(4), 419–434.

Loomis, K. D. (2000). Learning styles and asynchronous learning: Comparing the LASSI model to class performance. *Journal of Asynchronous Learning Networks*, *4*(1), 23–32.

Lu, H., Jia, L., Gong, S., & Clark, B. (2007). The relationship of Kolb learning styles, online learning behaviors and learning outcomes. *Educational Technology and Society*. *10*(4), 187-196.

Lyne de Ver, H. (2008). Leadership, politics and development: A literature survey. *LECRP Background Paper*, Retrieved from http://www.dlprog.org`

Mabey, C & Thomson, A. (2000). Achieving Management Excellence: A survey of UK Management Development at the Millennium. Institute of Management.

Mainemelis C, Boyatzis RE & Kolb DA (2002). Learning styles and adaptive flexibility: testing experiential learning theory. *Management Learning, 33*(1), 5–33.

Manochehr, N. (2006). The influence of learning styles on learners in e-learning environment: An empirical study. *Computers in Higher Education Economics Review*, *18*(1), 10-14.

Martin, A. (2005). *The Changing Nature of Leadership*. Retrieved from http://www.ccl.org

McCall, M. W., Jr. (1998). *High flyers: Developing the Next Generation of eaders.* Boston: Harvard Business School Press.

McCann, B. M. (2006).The relationship between learning styles, learning environments and student success. *Journal of Agricultural Education, 47*(3), 14-23

McCauley, C.D., & Hughes-James, M.W. (1994). *An Evaluation of the Outcomes of a Leadership Development Program*. Center for Creative Leadership: Greensboro, NC.

Mclagan, P. (2002). *Change is Everybody's Business*. San Francisco: Berrett-Koehler Publishers.

McLeod, S. A. (2010). *Kolb: The Learning Style Inventory.* Retrieved from http://www.simplypsychology.org/learning-kolb.html.

Melis, E., & Monthienvichienchai, R. (2004). They call it learning style but it's so much more. In G. Richards (Ed.), *Proceedings of World Conference on e-learning in Corporate, Government, Healthcare, and Higher Education* , 1383-1390. Chesapeake, VA: AACE.

Miller, D. L., Umble, K. E., Steve L. Frederick, S. L., & Dinkin, D. R. (2007). Linking learning methods to outcomes in public health leadership development. *Leadership in Health Services, 20*(2), 97-123.

Mishra, S. (2001). *Designing Online Learning*. Vancouver, Canada: Commonwealth of Learning. Retrieved from http://www.col.org/SiteCollectionDocuments/KS2001-02_online.pdf

Munson, E. L. (1921) The Management of Men, New York: Holt.

Nunnaly, J. (1978). *Psychometric theory.* New York: McGraw-Hill.

Obisi, C. (2011). Employee Training and Development in Nigerian Organisations: Some Observations and Agenda for Research. *Australian Journal of Business and Management Research, 1*(9), 82-91.

Orr, J.E. & Sack, K. (2009). Setting the stage for success: Building the leadership skills that matter. [Whitepaper]. Minneapolis, MN: Korn/Ferry. International.

Osguthorpe, T. R., & Graham, R. C. (2003). Blended learning environments. *Quarterly Review of Distance Education, 4*(3), 227–233.

Padilha, E. G. (2006). *Modelling Turn-taking in a Simulation of Small Group Discussion.* Doctor of Philosophy Institute for Communicating and Collaborative Systems School of Informatics, University of Edinburgh

Pallapu, P. (2007). Effects of visual and verbal learning styles on learning. *Institute for Learning Styles Journal, 1*, 34-39.

Pape, L. (2010). *Blended Teaching and Learning*, The School Administrator, 16-21.

Patrick, H. Straub, C. & Wolf, S. (2005). Learning styles of allied health students using Kolb's LSI- Iia. *Journal of Allied Health. 34*(3), 177-182.

Petrakova, A. & Sadana, R. (2007) Problems and progress in public health education. *Bulletin of the World Health Organization*, *85*(12), 901-980.

Postle, G. D., & Sturman, A. (2000). Models of Online Learning as a Factor in Online Education: An Australian case study. Keynote address presented at the Society for Research in Higher Education Conference, Stirling, UK.Frazier, P. A., Tix, A. P. & Barron, K. E. (2004). Testing moderator and mediator effects in counseling psychology research. *Journal of Counseling Psychology, 51*, 115-134.

Raelin, J.A. (2006). Does action learning promote collaborative leadership?. *Academy of Management Learning and Education, 5*(2), 152-68.

Raelin, J.A., & Coghlan, D. (2006). Developing managers as learners and researchers: using action learning and action research. *Journal of Management Education*, 30(5), 670-89.

Reid, G. (2005). *Learning Styles and Inclusion*. London: PCP.

Richmond, A. S., & Cummings, R. (2005). Implementing Kolb's learning styles into online distance education. *International Journal of Technology in Teaching and Learning, 1*(1), 45-54.

Rothwell, W. J., & Kazanas, H.C. (1999). *Building In-house Leadership and Management Development Programs*. Quorum Books: Westport, CN.

Saks, A. M., Haccoun, R. R., & Belcourt, M. (2010). *Managing Through Training and Development*. Toronto:Nelson Education 5th Edition.

Salas, E., & Kosarzycki, M. P. (2003). Why Don't Organizations Pay Attention to (and Use) Findings from the Science of Training?, *Human Resource Development Quarterly*, 14(4), 487-491.

Salehi, A., Strawderman, L., Huang, Y., Ahmed, S., & Babski-Reeves, K. (2009). Effectiveness of Three Training Delivery Methods in a Voluntary Program, *Proceedings of the Human Factors and Ergonomics Society Annual Meeting, 53,* 1959-63.

Sanders, T. (2011). Hotel Front Office Training: Turning Expense into Investment. UNLV Theses/Dissertations/Professional Papers/Capstones. Paper 1103.

Schaller, D.T., Borun, M., Allison-Bunnell, S., & Chamber, M. (2007). *One Size Does not Fit all: Learning Style, Play, and on-line interactive.* Paper presented at the Museums and the Web 2007: The international conference for culture and heritage on-line, Toronto, Canada.

Sein, M., Bostrom, R., & Olfman, L. (1987). Training end-users to computers: Cognitive, motivational, and social issues. *Information Systems and Operations Research,* 25, 236–254.

Shell, R. (1991). Personality and socialization correlates of vicarious emotional responding. *Journal of Personality and Social Psychology*, *61*(3), 459-470.

Sinniah, V. (2008). Management Training Methods: Relative Effectiveness and Frequency of Use in Malaysian Context. (Unpublished Master's thesis). University of Malaya, Selangor, Malaysia.

Sogunro, O. A. (1997). Impact of Training on Leadership Development: Lessons From a Leadership Training Program. *Evaluation Review, 21, 713-737, doi:10.1177/0193841X9702100605*

Souba, W.W. (2006). The inward journey of leadership. Journal of surgical research, 131, 159–167.

Stogdill, R. M. (1950). Leadership, membership and organization. *Psychological Bulletin*, 47, 1-14.

Terrell, S. (2002). Learning style as a predictor of success in a limited residency doctoral program. *The Internet in Higher Education*. 5(4), 345-352.

Thompson, J. (2007). Training supervisors to be leaders: a missing element in efforts to improve federal performance. Washington: Partnership for Public Service.

Tooth, T. (2000). *The use of multimedia in distance education.* Vancouver, Canada: Commonwealth of Learning. Retrieved from http://www.col.org/SiteCollectionDocuments/KS2000%20multimedia.pdf

Trinka, J. A. (2005). What's a manager to do?. *Industrial And Commercial Training*, *37* (3), 154-159, DOI 10.1108/00197850510593773.

Ugur, B., Akkoyunlu, B., & Kurbanoglu, S. (2011). Students opinions on blended learning and its implementation in terms of their learning styles. *Education and Information Technologies,* 16(1), 5-23. doi: 10.1007/s10639-009-9109-9

Van Ameijde, J.D.J., Nelson, P.C., Billsberry, J., & Van Meurs, N. (2009). Improving leadership in Higher Education Institutions: a distributed perspective. Higher Education, doi:10.1007/s10734-009-9224-y.

Van der Sluis, L.E.C. & Poell, R.F. (2002). Learning opportunities and learning behaviour: a study among MBAs in their early career stage. *Management Learning*, *33*(3), 145–156.

Van Velsor, E., & McCauley, C.D. (2004). Our view of leadership development. In C.D. MacCauley and E. Van Velsor (Eds.), Handbook of leadership development. (2nd edn). San Francisco: Jossey-Bass.

Vicere, A. A., & Fulmer, R. M. (1998). *Leadership by Design*. Harvard Business School Press: Boston, MA.

Voci, E., & Young, K. (2001). Blended learning working in a leadership development programme. *Industrial and Commercial Training*, *33*(5), 157-160.

Wagonhurst, C. (2002). Effective training programs. *Journal of Research Administration*. 33(2), 77 - 81.

Webster, J., & Martocchio, J. J. (1993). Turning work into play: implications for microcomputer software training. *Journal of Management*, *19*(1), 127–146.

Wilson, M. L. (2012). Learning styles, instructional strategies, and the question of matching: A literature review. *International Journal of Education*, *4*(3), 67-87. doi :10.5296/ije.v4i3.1785

Wyrick, D. (2003). Understanding learning styles to be a more reflective team leader and engineering manager. *Engineering Management Journal*, *15*, 27-33.

Young, D. P., & Dixon, N. M. (1996). *Helping Leaders Take Effective Action: A Program Evaluation*, Greensboro: NC.

Zacharis, N. Z. (2010). The impact of learning styles on student achievement in a web-based versus an equivalent face-to-face course. *College Student Journal*, *44*(3), 591-597. Retrieved from http://www.editlib.org/p/109107

Zuzeviciute, V., & Tereseviciene, M. (2010). The role of a human resource manager as a facilitator of learning: Some evidence from Lithuania. *Baltic Journal of Management*, *5*(1), 68-81.