

The Impact of Personality on Transfer of Training through Motivation: A Longitudinal Model

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Abstract

Amidst the researchers acknowledgement that learning is a key process that leads to successful innovations i.e., organization's competitive advantage, learning in organizations has been related with generation of knowledge and its demonstration by individuals collectively for creating new value for the organization. Moreover, researchers of late have started recognizing the impact of individual characteristics as a means of study for understanding its usefulness in the effective application/transfer of the acquired knowledge, skills and abilities for gaining the desired competitive advantage through the process of learning. In an effort to ascertain the effect of personality characteristics on transfer of learning through motivation to learn therefore, a longitudinal study was undertaken on a sample of 517 teacher trainees serving the state of J&K. The results indicated that neither personality traits (conscientiousness, openness to experience, internal locus of control) nor motivation facet (motivation to learn) predicted transfer of training directly as well as indirectly. The insignificant relationship between trait input variable and state outcome variables helped to ascertain that during and after human resource development intervention the implications of time factor attains much more importance in revealing when training works. The implications of the results are discussed and the limitations of the study are noted, along with suggested avenues for future research.

Key Words: Personality, Motivation, Training Transfer

I. INTRODUCTION

Amidst the researchers acknowledgement that learning is a key process that leads to successful innovations i.e., organization's competitive advantage (Cited in Hai-Jew, Shalin, p. 31), learning in organizations has been related with generation of knowledge and its demonstration by individuals collectively for creating new value for the

organization (Farrell, 2000). However, of equal importance is the need for effective application of the acquired knowledge, skills and abilities for gaining the desired competitive advantage through the process of learning.

In context to this, researchers (see for example Lovelace, 2005) propose that learner characteristics that match an appropriate treatment, learning activity, teaching situation will actually improve learning. Researchers (see for example, Grose & Briney, 1963; Khan, Mufti & Nazir, 2015) also argue that learning has been an enduring problem in psychology and education, but in reality, the problem is not in learning rather it is in the application of learning commonly conceptualized in academics as transfer of training (see for example, Holton, 1996). To quote, Baldwin & Ford (1988), transfer of training is "the extent to which knowledge, skills and abilities acquired in a training program are applied, generalized and maintained over some time in the job environment. Although, Blume et al., (2010) pointed that individual differences and motivational variables have been studied for their impact on transfer and industrial/organizational psychologists also do recognize that trainee characteristics predict work related behaviors. Nevertheless, these multifarious individual/learner/trainee characteristics can be studied well by measuring the extent to which they influence individual's behavior (Huang, 2012). Research argues that multifarious characteristics differ in concept and cannot be measured by a single measure due to individual differences that exist in nature. Given this, a number of models were developed by the researchers in the recent past emphasizing on the inhibitors as well as the facilitators to the effective application/transfer of the acquired knowledge.

The most acclaimed framework i.e., Baldwin & Ford's model (1988) is considered a universal template on transfer of training. Although, the model as well as the work on transfer of training

has provided directions to researchers but due to inconsistent and conflicting findings in the transfer literature, the gap stills remains. The present research is therefore an attempt to address the concerns raised by the academia in context to identifying the personality as an antecedent transfer of learning using motivation as a mediator.

The paper is divided into three sections. The first part captures the studies related to trainee characteristics as well as research hypotheses set for the study. The second section deals with Means and Measures related to independent and dependent variables. The third part deals with the result discussion and conclusions.

II. RESEARCH BACKGROUND & HYPOTHESES

It has been rightly said that “that the influencing trainee performances are innate dispositional variables that can affect the direction, level, and persistence components of trainee motivation (Herold, Davis, Fedor & Parsons, 2002; Kanfer & Ackerman, 1989). Dispositional variables are those variables that are internal to the individual and which they bring with them from situation to situation and from one organization to another. According to dispositional theorists, individuals possess relatively stable characteristics that affect their attitudes and behavior (Davis-Blake and Pfeffer, 1989). Notably, the concept of personality is one of the most often used concepts in psychology which almost captures and summarizes all of the individual’s dispositional variables. It is pertinent to mention here that personality have been found to be predictive of many job related behaviors. Researchers (see for example, Costa & McCrae, 1992; Schmidt & Hunter, 1998) acknowledge that the use of personality assessment for predicting performance has been around decades, but there had been lack of substantial empirical evidence to support its value.

From the perspective of prediction, there are numerous personality models proposed by researchers. However, among the most prominent and widely researched theories of personality is the Five-Factor Model developed by Costa & McCrae (1992) which has been considered the core paradigm in personality research (Goldberg, 1993). Actually, in contrast to other models, this model is not based on a specific theory but rather on how individuals perceive their own personalities and those of others. It holds that most individual differences in personality can be classified into five broad, empirically derived domains: extraversion, agreeableness, openness to experience,

conscientiousness and emotional stability. Researchers (see for example, Barrick & Mount, 1991; Barrick et al., 1998; Colquitt & Simmering, 1998 and Salgado, 1997) have advocated the relationship between personality and job performance variables, academic performance, motivation and training efficiency. Furthermore, researchers have linked personality dimensions to a number of industrial & organizational outcome variables including absenteeism (Mowday et al., 1982), employee reliability (Sackett & Harris, 1984), leadership (Ghiselli, 1971), organizational climate (Schneider, 1985), employee satisfaction (Staw and Ross, 1985), and work motivation (Korman, 1976).

In fact, personality type influences how an individual learns, and helps to accommodate learning style differences which make learning more effective. It is pertinent to mention here that Mount & Barrick (1998) noted “*that there remains a relative void in the literature regarding the relationship between personality dimensions and training outcomes*” (cited in, Colquitt et al., 2000, p. 679). Where, in the year 1990, Kanfer advocated the use of Big Five Model to advance the body of motivational research. Researchers (see for example, Barrick & Mount, 1991) hypothesized that in terms of job performance: agreeableness & extraversion are more important in occupations such as sales and management as compared to other occupations like professional, police and skilled/semi skilled. In fact, extraversion was found to be related for both management and sales but not among professionals, while agreeableness got very little score on management and sales. Among other Big Five traits, emotional stability was found to be negatively related to professionals in terms of job performance. Only, conscientiousness was found to be valid predictor among all occupations while openness to experience predicted the training proficiency very well. Similarly, the recent meta-analysis on training motivation by Colquitt et al., (2000) found only two dimensions of B5M influencing motivation to learn and moderately correlated to transfer, they were conscientiousness and neuroticism. Infact, it is said that “*there exist minimal or no empirical evidence supporting their relationship with transfer of training*” (Blume et al., 2010, p. 5). In the realm of personality; conscientiousness and openness to experience as a predictor of transfer of training, have shown comparatively a much better impact as is evident from the studies to follow:

III. CONSCIENTIOUSNESS

(Herold et al (2002) conceptualized conscientiousness as an extent to which someone is

dependable, preserving, hardworking, disciplined, deliberate, and achievement oriented. Moreover, it has been found to be consistently linked to motivation to learn as well as training outcomes (Barrick & Mount, 1991; Colquitt & Simmering, 1998; Naquin & Holton, 2002). However, there exists mixed support for conscientiousness and its relationship with transfer. For instance, Schippmann (1999) describes how organizations wishing to achieve a competitive advantage by virtue of low cost may seek conscientiousness and dedication of its workforce. Similarly, conscientiousness as a personality variable has been linked as strongly as cognitive ability to task performance in some studies (Alonso, 2000). However, Barrick, Mount and Strauss (1993) found support for a model where conscientiousness predicted overall performance by affecting goal setting. It has been found that conscientiousness has multiple pathways by which it affects overall performance (Ones and Viswesvaran, 1996). For instance, conscientious individuals are likely to spend more time on the task and less time daydreaming and this investment of time could result in greater acquisition. The training programs for teachers normally lasts for a week or so. Therefore, in the context of learning, conscientious employees need a great deal of time to learn.

IV. OPENNESS TO EXPERIENCE

Researchers (see for example, Barrick & Mount, 1991; Salgado, 1997) found another FFM trait i.e., openness to experience to be a valid predictor of training proficiency, where it has been found to be commonly associated with many dimensions which include being imaginative, cultured, curious, original, broad minded, and intelligent (Barrick & Mount, 1991). Notably, the study conducted by Pagon, Banutai and Bizjak (2011) on public administration managers from the European Commission proposed that when the levels of initial training, informal training, mentoring, coaching, and the availability of resources are low, individuals high in openness to experience get bored and do not put their abilities to the best use. On the other hand, those low in openness to experience were found to be much more comfortable under these circumstances, and that is the reason why they outperformed than their high-openness-to-experience counterparts in terms of acquiring multicultural skills.

V. INTERNAL LOCUS OF CONTROL

Generally, in domains other than learning, the research literature has shown consistently that (generalized) locus of control has been predictive of academic achievement and related behaviors. In the year 1985, Trice found that internal locus of control

was positively related to certain school achievement related behaviors, for instance, class participation and study skills that are usually considered to aid learning and development. However, Colquitt et al., (2000) meta-analytic review covering 106 studies published from the period 1975 to 2000 found internal locus of control strongly related to motivation to learn but not with the skill acquisition. Because of the fact that, the relationship between locus of control and academic achievement have been found to be indirect, and this indirect relationship was found to be mediated by motivation/motivated behaviors such as task completion, participation and engagement (see for example, Finn & Rock, 1997). In fact, Anderson et al., (2001) put forth an argument that previous research has shown that the relationship between locus of control and academic achievement being generally mediated by instructional environment. In context to the above cited literature, the following hypotheses have been set for the study:

H1. Personality traits i.e., conscientiousness, openness to experience and internal locus of control will be positively related to the transfer of training.

H2. Motivation to learn will be predicted by personality traits.

H3. The degree of relationship between personality traits & transfer of training will be mediated by Motivation to learn.

VI. THE RATIONALE FOR THE STUDY

The domain of the study was the education sector of the State of J&K. At the National level, the recognition of the importance of training activities led India in 1985 to become the first nation in the Asia-Pacific region to create the Ministry of Human Resource Development (Rao, 2004). Therefore, it can be seen that training & developing the human resource has been the priority of the Government, costing the exchequer a huge sum annually.

However, no evaluation study has been conducted at the State level to know the impact of teacher trainee characteristics on the application of skills. So in this regard, the study assesses factors impacting transfer of skills in public domain. Moreover, research on transfer of training is scant particularly in context to our State of Jammu and Kashmir. Therefore, the study assumes all the more relevance in assessing the transfer of training in the select Government run schools in districts of the State of Jammu & Kashmir.

VII. SAMPLE SIZE

In social sciences, the researchers have a common question in asking, the moment regression models employed for analysis(i.e.,what sample size is needed for my study?).Although, many researchers (see for example, MacCullum, 1996) developed various methods to determine minimum sample size in order to achieve a given level of power to test model fit. However, the procedure proposed by Muthen&Muthen (2002) (i.e., Monte Carlo Simulation) to determine sample size in SEM, is quite remarkable. It is necessary to know that four interrelated concepts (i.e., sample size, type I error-type II error & effect size) as an input are needed in MPlus software to determine adequate sample size for Structure equation models (see for example,Kelly & Maxwell, 2003). It is pertinent to know that the estimates for variables in the study were taken from

Meta analytic study on transfer of training of Colquitt et al., (2000) &Blume et al., (2010) and the remaining estimates were taken by focusing on 10 studies, assumed to be enough for short listing. Therefore, following the recommendations of Muthen&Muthen (2002), the effect size determined by NHST-power approach for the present study = 0.50; power of 0.80, alpha level of 0.05. Taking these as inputs the simulation sequence was increased in increments by 25 starting from 300-600 sample (Maxwell & Kelly, 2010). The minimum sample determined for each construct arrived to be 400 statistically significant. Moreover, taking 400 as sample, sensitivity analysis with different seed numbers, i.e., 1 and 500 with 10000 replications each time was performed, the output of which is listed in a tabular format:

Table 3. Values from Monte Carlo Sample Size Studies at 400 sample size

Parameter	Estimate value	Relative PbSEb	Coverage	1-β	95% CI	Relative PbSEb	Coverage	1-β	95% CI
Conscientiousness	0.86	-0.01 -0.01	.95	1	0.20	-0.01 .02	.94	1	0.20
Openness to Exp	-0.16	-0.01 -0.01	.94	.99	0.13	-0.01 .02	.94	.99	0.13
Internal locus of Control	0.74	-0.01 -0.01	.94	1	0.17	-0.01 .02	.94	1	0.17
Motivation to learn	0.16	-0.01 .01	.95	.93	0.18	.01 .01	.95	.93	0.18

Note: Pb = Parameter bias; SEb = Standard Error bias; 95% confidence interval/2 = 95% confidence interval half width recommended by Maxwell & Kelly, (2010).

From the table 3, it can be observed that the simulations with 10000 replications with different seed numbers show that estimates remain same while performing sensitivity test on 400 sample size (see for example (Muthen&Muthen, 2002).

VIII. RESEARCH METHOD

In order to test cause-effect relation & precisely estimate the magnitude of relation between stated independent and dependent variables, the study employed cross-sequential design recommended by researchers (Chiaburu, Van-Dam & Hutchins, 2010). Infact, longitudinal design is consistent with the five conditions of cause-effect relationship, it include: temporal precedence, association, isolation, correct effect priority and distributional form (e.g., Pearl, 2000; Mulaik, 2009).

IX. MEASURES

Conscientiousness and openness to experience were measured using John et al., (2008) Big Five Inventory. The 10 items measuring

conscientiousness, assess individuals tendency to be dependable, organized, self-disciplined, preserving, hardworking, & deliberate ($\alpha = 0.86$) with sample items reading as: ‘I am someone who does a thorough job’ (conscientiousness) and another 9 items measuring openness to experience, assess individuals’ intellectual, curiosity, and imagination (0.88) with sample items as ‘I am someone who is original, comes up with new ideas’ (openness to experience). Internal locus of control was measured by using 4 item inventory developed by Levenson (1978). Sample item included: ‘I am almost certain to make my plans work.’

Motivation to learn ($\alpha = 0.81$) was measured with the Noe& Schmitt’s (1986) 5 item scale. Sample items are: ‘Generally, I am enthusiastic about learning new things.’

Transfer of Training was measured with variables like declarative knowledge, maintenance of knowledge and generalization of knowledge.

Declarative knowledge consisted of 5 objective type questions related to content domain for which the trainee is prepared for. Maintenance of knowledge ($\alpha = 0.71$) was measured with the scale developed by McDonald (2010). Generalization of knowledge ($\alpha = 0.73$) was measured using Fecteau et al., (1995) scale. Sample items include, *'The improvement in students when I use new skills makes me interested to maintain those newly learned skills'* (maintenance), *'Based on the formal skills training received from DIET, I am able to use the newly learned skills wherever it is needed'* (generalization).

X. PILOT TESTING

Researchers (see for example, Lewis et al., 2005; Bryman & Bell, 2007) supported the fact that pilot testing is a necessary exercise, so that an instrument is well assessed in order to detect early problems. In fact, pilot study is considered as *"dress rehearsal"* that fine tune and refines items.

In the present study, a sample of 100 teachers was contacted to conduct a pilot test. In fact, Lewis et al., (2005) recommended that 50 participants for pilot testing are adequate to determine the quality of instrument. The pilot survey was conducted in the month of December-2013.

The deletion of some items belonging to certain constructs was made because the loadings were below 0.70, and deletion helped to attain standard loadings, standard item weights, reliability etc. Infact, the items deleted from conscientiousness include: *C1, C2, C4, C5, C6, C9, C10*; on openness to experience these include: *OE2, OE5, OE6, OE7, OE8, OE9, OE10, OE11*; on internal locus of control it include *ILOC3*; on motivation to learn: *ML2, ML3*; on generalization and maintenance these include *G4* and *M4*.

XI. DATA COLLECTION

For the present study, the data were collected from Districts of Jammu & Kashmir at three points of time i.e., T1-immediately after training; T2- after a week from T1; T3-after 3 months from T2. From the districts of Jammu division, the data collection were collected within a period of 14 weeks from March – June 2014, while from the districts of Kashmir division, the data were collected between the period of March and May-2014. Data from Ladakh region were collected in the month of August 2014 to starting November 2014. The list of schools was obtained from the Directorate of School Education, Jammu as well as Kashmir.

Given the peculiar nature of the study, the respondents belonging to a particular division, region, and district were codified in order to locate and approach to same respondent at T2 & T3.

Although, a target of 700 sample respondents to be contacted at time1 was thought to be feasible, because taking note from the previous similar longitudinal study on teacher training, an appropriate level i.e., 10% was considered to be feasible in case for attrition. But at t1, a total of 723 questionnaires were distributed measuring personality traits, which included 389 questionnaires distributed to school teachers in Kashmir division, while 176 questionnaires were distributed to school teachers in Jammu division and 158 questionnaires in Ladakh region respectively. Among the distributed questionnaires 389 were received from Kashmir region, 176 questionnaires from Jammu region and 158 questionnaires from Ladakh region. Therefore, a total of 723 questionnaires were again received from all the three regions making a response rate of 100% at T1. At T2 (i.e., after a week), only 676 questionnaires were distributed out of 723, because of the absence of teachers, non-response, and long distances to cover minimum number of teacher were avoided. At T2, questionnaires related to measure motivation to learn was distributed and collected on spot i.e., 367 were received from Kashmir region, 157 from Jammu region and 152 from Ladakh region, making a response rate of 93.49% (i.e., $676/723*100$) with the base of T1. Finally, at T3, 676 questionnaires were distributed to measure transfer of training among teacher trainees in all the three regions, out of which only 313 questionnaires were received from Kashmir region, 110 from Jammu region and 111 from Ladakh region (i.e., overall a response rate of 90.78 %).

Therefore, 534 cases are above the threshold level of 400 cases in the present study.

XII. SUSPICIOUS PATTERN

From the total of 534 questionnaires received, 17 (i.e., 6 – Kashmir, 7 Jammu & 4-Ladakh) cases were suspicious i.e., responding in a sequential way which is most common because sometimes respondents choose to make a quick completion of questionnaire without focusing the contents of the questionnaire. Therefore, the said questionnaires were not processed further for data analysis.

XIII. MEASUREMENT MODEL

Measurement model testing was performed in order to assess reliability and uni-dimensionality. The estimates are tabulated as under.

Table 5 Instrument psychometrics

LV's	MV's	α	Composite reliability	AVE
1. Conscientiousness	3	.82	.89	.74
2. Openness to experience	3	.75	.85	.65
3. Internal locus of control	3	.59	.77	.51
4. Motivation to learn	3	.66	.82	.59
5. Generalization	3	.81	.88	.72
6. Maintenance	3	.66	.81	.60

Note: LV's = Latent Variables; MV's = Manifest variables; α = Cronbach's alpha; AVE = Average variance extracted

From the Table 5, internal consistency of the constructs were measured by two facets of reliability i.e., Cronbach's alpha and composite reliability. Chin (1998) proposed that composite reliability (CR) of the component should be greater than 0.70. It can be observed from the above that CR of all factors was above 0.70. Moreover, it is also evident from estimates that none of the items were further deleted as they all established standard psychometrics.

For convergent validity of each construct, Average Variance Extracted (AVE) values were examined.

Researchers (see for example, Anderson & Gerbing, 1988). Proposed that constructs having AVE value greater than 0.5 indicate convergent validity or unidimensionality.

From the Table 6, discriminant validity was measured by observing the cross loadings of items. Notably, the items loadings on its respective construct need to be higher as compared to its loadings on other constructs. It can be observed that items load higher on their respective construct as compared its loading on other constructs.

Table 6 Discriminant validity of items

Items	Conscientiousness	Openness to experience	Internal locus of control	Motivation to learn	Generalization	Maintenance
Conscientiousness 3	0.80	0.40	0.38	-0.08	0.03	-0.00
Conscientiousness 7	0.89	0.40	0.36	-0.07	0.05	0.03
Conscientiousness 8	0.88	0.26	0.27	-0.11	0.02	0.03
Openness to experience 1	0.34	0.87	0.68	-0.04	0.05	0.09
Openness to experience 3	0.26	0.73	0.50	-0.01	0.07	0.03
Openness to experience 4	0.36	0.82	0.69	-0.02	0.03	0.08
Internal locus of control 1	0.32	0.76	0.96	-0.05	0.06	0.11
Internal locus of control 3	0.28	0.39	0.55	-0.01	0.02	0.02
Internal locus of control 4	0.27	0.34	0.49	-0.05	0.05	0.00
Motivation to learn 1	-0.05	-0.01	0.02	0.65	0.18	0.18
Motivation to learn 4	-0.07	-0.00	-0.01	0.88	0.27	0.29

Motivation to learn 5	-0.12	-0.07	-0.13	0.76	0.19	0.16
Generalization 1	0.07	0.08	0.09	0.25	0.88	0.68
Generalization 2	-0.01	0.07	0.07	0.23	0.86	0.67
Generalization 3	0.03	0.00	0.00	0.23	0.81	0.51
Maintenance 1	0.04	0.08	0.08	0.21	0.76	0.85
Maintenance 2	-0.00	0.09	0.07	0.23	0.28	0.66
Maintenance 3	0.02	0.02	0.05	0.20	0.67	0.79

Note: Cross loadings

XIV. STRUCTURAL MODEL

The analysis of structural model is the essence of study, however the inclusion of mediation in the preset study was confirmed following the recommendations of Baron & Kenny (1986) as well as Preacher & Hayes (2004). For instance, in order to test mediation model, these conditions need to be met:

1. The independent variable should be a significant predictor of the dependent variable i.e., $Y = \beta_{10} + \beta_{11}X + \varepsilon_1$ i.e., β_{11} is significant
2. The independent variable should be a significant predictor of the mediator.
 $Me = \beta_{20} + \beta_{21}X + \varepsilon_2$
i.e., β_{21} is significant

However, if the mediator is not associated with the independent variable, then it couldn't possibly mediate anything and further analysis is futile.

3. The mediator and the independent variable are used simultaneously to predict the dependent variable, but the previously significant path between the independent and dependent variables should be greatly reduced, if not non-significant.

β_{32} is significant and β_{31} should be smaller in absolute value than the original mediation effect (β_{11} above).

Therefore, in the present study step wise analysis was performed to test direct, indirect and total effect. In Ist step, the effect of personality traits on transfer of training was assessed and analyzed and thoughtfully aligned with the results on the grounds that whether previous studies confirmed or rejected the impact of specific variables on dependent variable. Notably, studies which include education sector part of their study and teacher trainees as part of their sample study were focused.

Figure 1 Path coefficients from independent to dependent variable

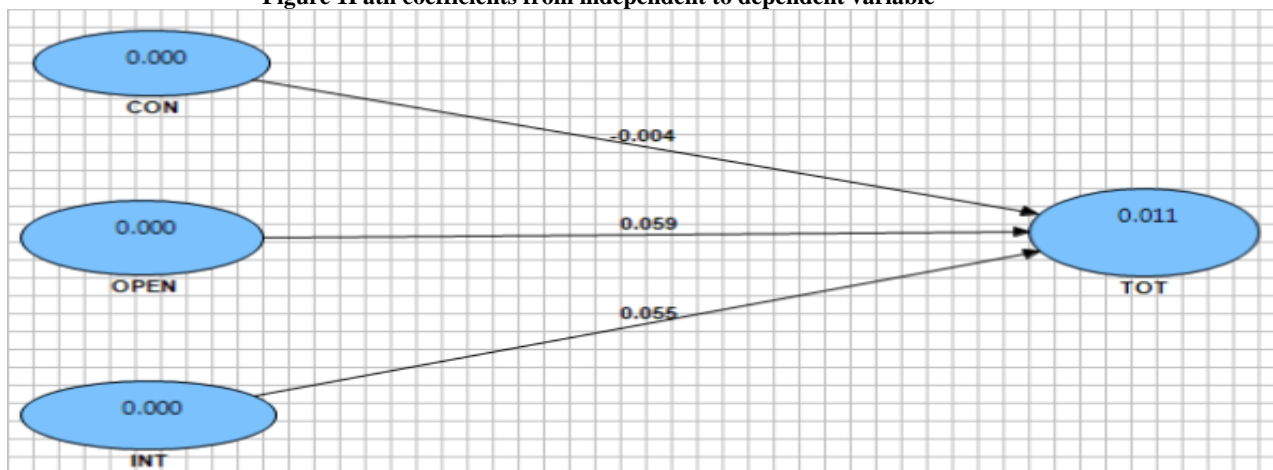


Table 7 Structural model assessment of Model 1 (PLS path model without mediators)

Endogenous construct	R²			
<i>Transfer of training</i>	<i>0.011</i>			
Relation	Path coefficient	Std Error	Bias corrected 95% confidence interval	Effect size

	t			f^2
1. Conscientiousness > transfer of training	-0.004	0.07	[-0.09-0.15]	0.009
2. Openness to experience > transfer of training	0.059	0.06	[-0.10 - 0.19]	0.000
3. Internal locus of control > transfer of training	0.055	0.07	[-0.09-0.21]	0.005

Note: The cross-validated redundancy measure Q2 is derived from the blindfolding procedure; Bootstrap confidence interval = 0.025 – 0.975

From the table 7, personality based trait like – conscientiousness was not found to be affecting transfer of training, which is consistent with earlier results of researchers (see for example, Colquitt et al., 2000; Martocchio & Judge, 1997; and Kanfer & Ackerman, 1989; Blume, Ford, Baldwin, & Huang, 2010). The reason for such results can be attributed to the fact that conscientious trainees are unrealistic when assessing their actual learning improvement (Martocchio and Judge, 1997), and they engage in more distract self-regulatory activities (Kanfer and Ackerman, 1989) which makes them more focused on imminent task completion than developing new skills (Burke & Hutchins, 2007). Also, it has been found that conscientiousness has not only positives but also ‘dark sides relevant to organizational behavior’ (Cited in, Chiaburu, Sawyer & Thoroughgood, 2010; p. 386). Researchers (see for example, Barrick & Mount, 1996) found conscientiousness positively linked to self-deception. Similarly, I-LOC was also not found to be predicting transfer although Colquitt et al., (2000) found I-LOC moderately related to transfer. The fact that locus of control is also personality characteristic (Cohen and Edwards; 1989) and in present study being insignificant influencer is consistent with the study conducted by Christiansen & Tett (2009). They argued that the impact or effect of personality on

transfer outcomes likely depend on the strength of the training intervention i.e., ‘with the presence of a strong intervention, the effects of personality variables weaken or even dissipate.’

Infact, in their meta analytic study, Blume et al., (2010) found very small correlations between conscientiousness, openness to experience and locus of control. The researchers cautioned that most of the relationships were tested immediately after training i.e., “relationships were examined transfer in the lab context with little or no time between training and the transfer measure.” (Cited in, Blum et al, 2010; p. 15). Also, the number of studies capturing relationship between these variables with outcome variable were based on small samples.

XV. STEP 2

To assess the effect of conscientiousness, openness to experience and internal locus of control on motivation to learn, data were analyzed in SmartPLS 2.0, the output results are showed in the following table. It can be seen that none of the personality traits predicted motivation to learn i.e., the paths leading from personality traits to motivation to learn were statistically insignificant with zero confidence interval.

Figure 2 Path coefficients from independent to mediating variable

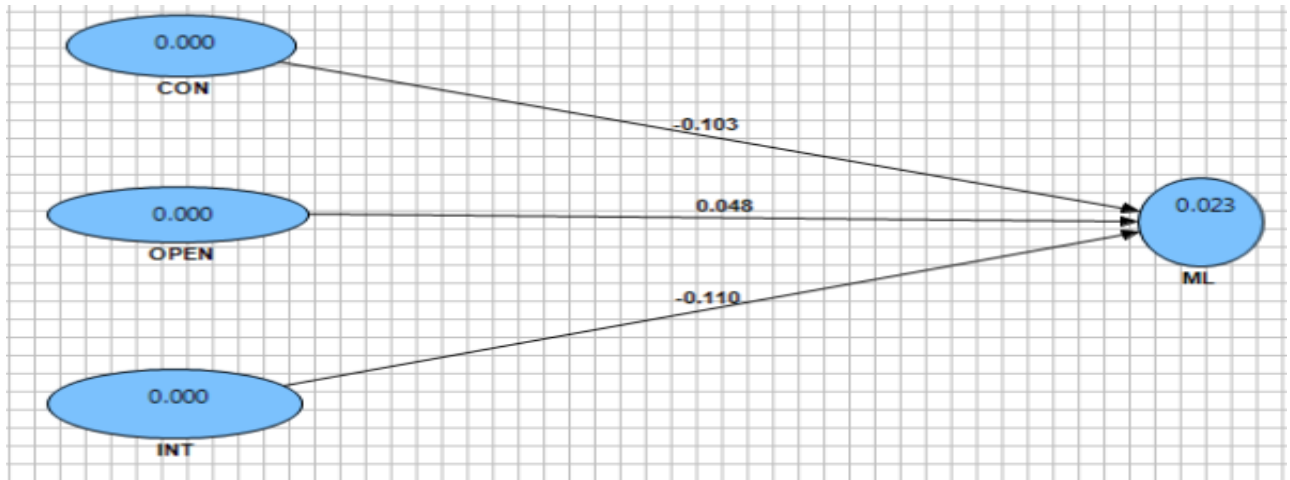


Table 8 Path estimates from personality traits to motivation to learn

Endogenous construct	R ²				
Motivation to learn	0.023				
Relation	Path coefficient	t-value	Bias corrected 95% confidence interval	Effect size	f ²
1. Conscientiousness -> Motivation to learn	-0.103	1.432	[-0.221- 0.001]	0.001	
2. Openness to experience -> Motivation to learn	0.048	0.525	[-0.11 – 0.224]	0.000	
3. Internal locus of control -> Motivation to learn	-0.110	0.999	[-0.09 – 0.217]	0.000	

Note: Bootstrap confidence interval = 0.025 – 0.975

From Table 8, personality traits were found to have no impact on learning motivation. The reasons for such results can be attributed to the fact that researchers (see for example, e.g., Baldwin & Magjuka, 1997; Martocchio, 1992; Noe, 1986; Noe & Schmitt, 1986; Quinones, 1995) found relationship between individual variables and motivation to be mediated by self-efficacy, valence, and job/career variables. Infact, the complete mediation argument as proposed by Katzell and

Thompson (1990) and Kanfer’s (1990) regarding individual characteristics and performance is observed. Because, in present target population, the participation in training is without any considerable tangible reward i.e., besides their participation there is no gateway for time bound career progression or any considerable outcome. It can be concluded that the training is only task oriented i.e., there is no immediate rewards associated with training or applying training skills back at school. It is evident that training is one time shot to improve performance of employees for a particular session or a year. That is, rewards in society which is power oriented as per the research of Hofstede (1984) can significantly impact the

behavior, motivation and application of knowledge. As rewards indicate power affiliation i.e., being associated with Government i.e., power house. However, teachers don’t prefer to go extra mile, as they perceive it creates imbalances between effort and reward, that is why the fixed salary content (i.e., security) motivates educated person to go for teaching but lack of benefits beyond salary at schools inhibits application of knowledge received through training programs.

XVI. CONCLUSION

It has been rightly said that “the fate of a business does not depend on how much credit and debit it creates, but how much commitment, compassion and competence its workforce shows” (Cited in, Imran et al., 2015, p. 5). The impact of personality traits on transfer as well on motivation being absent depicts that teachers personality don’t seem to influence teachers motivation to learn and also the application of learned knowledge. But, as already mentioned the design of the study being longitudinal can be a significant reason for the low impact (i.e., time factor). Researchers (see for example, Mischell, 1977) argue that time can also act as a situational constraint which can limit the

effects of personality. If personality represents characteristic reactions to various types of goal conditions, then highly conscientious people may spend so much attentional effort on satisfying goals that they neglect the learning task itself (Kanfer&Ackerman, 1989).The similar results were observed because we examined the effects of personality variables on transfer over time, where its impact was negligible. Therefore, the longitudinal study with repeated measures design is need of the hour.So that, the influence of variable is gauged at each time of the data collection, maybe it take time to ripe the impact of such variables.

Similarly, training programs are considered interventions that do not fall in the category of development. However, the State Education Department considers training as developmental aspect for teachers i.e., teachers in future are promoted on the basis of how many training programs they have attended, which in our opinion should be avoided as soon as possible. Rather benefits should be provided for teachers in the same year or session in which training is conducted and performance appraisal of teachers should be made in the same session in order to award outperformers. This will not only sustain motivation but can also lead to effective evaluation of training.

Similarly, the meta-analytic results based on the study on transfer of training can be somewhat biased due to low sample sizes. Infact, it has been pointed that *“differences in correlations across primary studies are often more a function of small sample sizes than meaningful differences in the nature of the relationship between two variables across settings”* (cited in, Barrick& Mount, 2001; p. 2). Therefore, it can be observed that meta analytic studies lack methodological facet in terms of sample size, so the relationships existing between variables need to understood well.

XVII. LIMITATIONS & FUTURE RESEARCH SUGGESTIONS

Items on conscientiousness, openness to experience and motivation scale performed poorly in this study. In future studies researchers need to explore whether after deleting items the factor structure remains same construct operationalization. Another limitation of the study is that effect size of .50 was determined based on the estimates size of two meta analytic and 10 empirical research studies. However, the correlation estimates of 10 empirical studies cannot be compared with the correlation size of meta-analytic studies. The study conducted without considering demographic

variables as moderators as well as other sources of can lead to biased estimates.

As compared to cross-sequential design to unearth the facts whether time elapses change transfer nature from near transfer to far transfer (Barnett & Ceci, 2002) longitudinal design with repeated measures need to be used. Besides that the focus in the present study was on transfer studies being well documented in the last ten year period, but most studies have ignored to determine the effect size of transfer of training. Therefore, it is necessary that the effect size of transfer need to established so that it help researchers to determine other facets of the study. Also, the personality and training related factors that can protect teachers from the criticism need to be identified.

REFERENCES

- [1] Alonso, A. (2000). The relationship between cognitive ability, the Big Five, Task and Contextual Performance: A meta-analysis.
- [2] Anderson, N., Ones, D. S., Sinangil, H. K., & Viswesvaran, C. (2002). Industrial, Work & Organizational Psychology.
- [3] Baldwin, T. T., & Ford, J. K. (1988). Transfer of training: A review and directions for future research. *Personnel psychology*, 41(1), 63-105.
- [4] Barnett, S. M., & Ceci, S. J. (2002). When and where do we apply what we learn?: A taxonomy for far transfer. *Psychological bulletin*, 128(4), 612.
- [5] Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, 51(6), 1173.
- [6] Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions and job performance: a meta-analysis. *Personnel psychology*, 44(1), 1-26.
- [7] Barrick, M. R., Mount, M. K., & Strauss, J. P. (1993). Conscientiousness and performance of sales representatives: Test of the mediating effects of goal setting. *Journal of Applied Psychology*, 78(5), 715.
- [8] Barrick, M. R., Stewart, G. L., Neubert, M. J., & Mount, M. K. (1998). Relating member ability and personality to work-team processes and team effectiveness. *Journal of applied psychology*, 83(3), 377.
- [9] Blume, B. D., Ford, J. K., Baldwin, T. T., & Huang, J. L. (2010). Transfer of training: A meta-analytic review. *Journal of Management*, 36(4), 1065-1105.
- [10] Burke, L. A., & Hutchins, H. M. (2007). Training transfer: An integrative literature review. *Human resource development review*, 6(3), 263-296.
- [11] Chiaburu, D. S., Sawyer, K. B., & Thoroughgood, C. N. (2010). Transferring More than Learned in Training: Employees' and managers' (over) generalization of skills. *International Journal of Selection and Assessment*, 18(4), 380-393.
- [12] Chiaburu, D. S., Van Dam, K., & Hutchins, H. M. (2010). Social support in the workplace and training transfer: A longitudinal analysis. *International Journal of Selection and Assessment*, 18(2), 187-200.
- [13] Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern methods for business research*, 295(2), 295-336.

- [14] Cohen, S., & Edwards, J. R. (1989). Personality characteristics as moderators of the relationship between stress and disorder.
- [15] Colquitt, J. A., & Simmering, M. J. (1998). Conscientiousness, goal orientation, and motivation to learn during the learning process: A longitudinal study. *Journal of applied psychology*, 83(4), 654.
- [16] Colquitt, J. A., LePine, J. A., & Noe, R. A. (2000). Toward an integrative theory of training motivation: a meta-analytic path analysis of 20 years of research. *Journal of applied psychology*, 85(5), 678.
- [17] Costa, P. T., & McCrae, R. R. (1992). Four ways five factors are basic. *Personality and individual differences*, 13(6), 653-665.
- [18] Davis-Blake, A., & Pfeffer, J. (1989). Just a mirage: The search for dispositional effects in organizational research. *Academy of management review*, 14(3), 385-400.
- [19] Fecteau, J. D., Dobbins, G. H., Russell, J. E., Ladd, R. T., & Kudisch, J. D. (1995). The influence of general perceptions of the training environment on pretraining motivation and perceived training transfer. *Journal of management*, 21(1), 1-25.
- [20] Farrell, M. (2000). "Developing a market-oriented learning organization", *Australian Journal of Management*, Vol. 25, pp. 201-221.
- [21] Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G* Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior research methods*, 39(2), 175-191.
- [22] Feixas, M., Duran, M. D. M., Fernández, I., Fernández, A., García San Pedro, M. J., Márquez, M. D., ...& Zellweger, F. (2013). ¿Cómo medir la transferencia de la formación en Educación Superior?: el Cuestionario de Factores de Transferencia. *REDU. Revista de Docencia Universitaria*, 11(3), 219-248.
- [23] Finn, J. D., & Rock, D. A. (1997). Academic success among students at risk for school failure. *Journal of applied psychology*, 82(2), 221.
- [24] Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of marketing research*, 382-388.
- [25] Ghiselli, E. E. (1971). Explorations in managerial talent.
- [26] Grose, R. F., & Birney, R. C. (Eds.). (1963). *Transfer of learning: An enduring problem in psychology* (No. 9). Princeton, NJ: Van Nostrand.
- [27] Hai-Jew, S. (2004). *Washington Online Virtual Campus: Infusing culture in dispersed web-based higher education. The International Review of Research in Open and Distributed Learning*, 5(2).
- [28] Herold, D. M., Davis, W., Fedor, D. B., & Parsons, C. K. (2002). Dispositional influences on transfer of learning in multistage training programs. *Personnel Psychology*, 55(4), 851-869.
- [29] Holton, E. F. (1996). The flawed four-level evaluation model. *Human resource development quarterly*, 7(1), 5-21.
- [30] Huang, L. (2012). *A MULTIFOCAL FRAMEWORK OF PERSONALITY APPLIED TO TRAINING AND TRANSFER* (Doctoral dissertation, Michigan State University).
- [31] John, O. P., Naumann, L. P., & Soto, C. J. (2008). Paradigm shift to the integrative big five trait taxonomy. *Handbook of personality: Theory and research*, 3, 114-158.
- [32] Kanfer, R. (1990). Motivation theory and industrial and organizational psychology. *Handbook of industrial and organizational psychology*, 1(2), 75-130.
- [33] Kanfer, R., & Ackerman, P. L. (1989). Motivation and cognitive abilities: An integrative/aptitude-treatment interaction approach to skill acquisition. *Journal of applied psychology*, 74(4), 657.
- [34] Katzell, R. A., & Thompson, D. E. (1990). Work motivation: Theory and practice. *American psychologist*, 45(2), 144.
- [35] Kelley, K., & Maxwell, S. E. (2003). Sample size for multiple regression: obtaining regression coefficients that are accurate, not simply significant. *Psychological methods*, 8(3), 305.
- [36] Khan, I., Mufti, S., & Nazir, N. A. (2015). Transfer of Training: A Reorganized Review on Work Environment and Motivation to Transfer. *International Journal of Management, Knowledge and Learning*, 4(2), 197-219.
- [37] Korman, A. K. (1976). Hypothesis of work behavior revisited and an extension. *Academy of Management review*, 1(1), 50-63.
- [38] Levenson, H. (1973). Reliability and Validity of the I, P, and C Scales-A Multidimensional View of Locus of Control.
- [39] Lovelace, M. K. (2005). Meta-analysis of experimental research based on the Dunn and Dunn model. *The Journal of Educational Research*, 98(3), 176-183.
- [40] Martocchio, J. J., & Judge, T. A. (1997). Relationship between conscientiousness and learning in employee training: mediating influences of self-deception and self-efficacy. *Journal of Applied Psychology*, 82(5), 764.
- [41] McCallum, A. K. (1996). *Bow: A toolkit for statistical language modeling, text retrieval, classification and clustering*.
- [42] McDonald, B. L. (2001). *Transfer of training in a cultural context: A Cook Islands study*. Unpublished doctoral dissertation, Victoria University of Wellington, New Zealand.
- [43] Mischel, W. (1977). On the future of personality measurement. *American Psychologist*, 32(4), 246.
- [44] Mowday, R. T., Porter, L. W., & Steers, R. (1982). Organizational linkages: The psychology of commitment, absenteeism, and turnover.
- [45] Mulaik, S. A. (2009). *Linear causal modeling with structural equations*. CRC Press.
- [46] Murphy, K. R., & Myers, B. (1999). Testing the hypothesis that treatments have negligible effects: Minimum-effect tests in the general linear model. *Journal of Applied Psychology*, 84(2), 234.
- [47] Muthén, L. K., & Muthén, B. O. (2002). How to use a Monte Carlo study to decide on sample size and determine power. *Structural Equation Modeling*, 9(4), 599-620.
- [48] Naquin, S. S., & Holton, E. F. (2002). The effects of personality, affectivity, and work commitment on motivation to improve work through learning. *Human Resource Development Quarterly*, 13(4), 357-376.
- [49] Noe, R. A., & Schmitt, N. (1986). The influence of trainee attitudes on training effectiveness: Test of a model. *Personnel psychology*, 39(3), 497-523.
- [50] Ones, D. S., & Viswesvaran, C. (1996). Bandwidth-fidelity dilemma in personality measurement for personnel selection. *Journal of Organizational Behavior*, 17(6), 609-626.
- [51] Pagon, M., Banutai, E., & Bizjak, U. (2011). On-the-job management training and multicultural skills: The moderating effect of openness to experience. *European Journal of Cross-Cultural Competence and Management*, 2(1), 45-53.
- [52] Pearl, J. (2000). Causal inference without counterfactuals: Comment. *Journal of the American Statistical Association*, 95(450), 428-431.

- [53] Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior research methods, instruments, & computers*, 36(4), 717-731.
- [54] Sackett, P. R., & Harris, M. M. (1984). Honesty testing for personnel selection: A review and critique. *Personnel Psychology*, 37(2), 221-245.
- [55] Salgado, J. F. (1997). The Five Factor Model of personality and job performance in the European Community. *Journal of Applied psychology*, 82(1), 30.
- [56] Schippmann, J. S. (1999). *Strategic job modeling*. LEA, New Jersey.
- [57] Schmidt, F. L., & Hunter, J. E. (1998). The validity and utility of selection methods in personnel psychology: Practical and theoretical implications of 85 years of research findings. *Psychological bulletin*, 124(2), 262.
- [58] Schneider B. (1985). *Organizational behavior*. *Annual Review of Psychology*, 36, 573-611.
- [59] Staw, B. M., & Ross, J. (1985). Stability in the midst of change: A dispositional approach to job attitudes. *Journal of Applied psychology*, 70(3), 469.
- [60] Trice, A. D. (1985). An academic locus of control scale for college students. *Perceptual and Motor Skills*, 61(3f), 1043-1046.