



## Relationship Between Academic Locus of Control and Vicarious Learning of Intermediate Students

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**Abstract-** The research in hand investigated the association between the Academic Locus of control and Vicarious Learning of intermediate students. The study was conducted in quantitative paradigm using correlational method. All intermediate students of government colleges in Lahore district were the population of the study. One thousand intermediate students (session 2017-2019) of Govt. Degree Colleges from Lahore were selected through cluster sampling. Researchers used two separate questionnaires to collect data for identifying the nature of Academic Locus of control and Vicarious Learning amongst intermediate learners. The Pearson r calculation provided the evidence that there is a significant positive moderate to high relationship between Internal Academic Locus of control and Vicarious Learning of sample intermediate students. The study holds implications for effective orientation sessions and developing participative and encouraging environment for motivating intermediate students at college level.

**Keywords:** Academic Locus of Control, Vicarious Learning, Intermediate students, social cognition

### I. INTRODUCTION

The quality of learning depends upon students' capabilities of how they think, organize, process, retain, recall, encode and classify the knowledge they gain (Komarraju et al., 2011). In fact, many elements influence the academic accomplishments. For instance, Locus of control denotes the attributions that people ascribe for their achievements and losses (Grantz, 2006). As Abid et al., (2016) elaborated that locus of control is the positive or negative attribution of an individual that depends on the change and ability of human beings; it deals with behaviour of individuals; some have low tolerance to reject change and some have high tolerance to accept change easily. Thus, locus of control identifies responses of individuals. Actually, Locus of control is a personality trait, which refers to the "self-reflection" and includes the assessment of an individual's "self-efficacy" which is stated as "the most distinct core property of human agency" (McAdams & Pals, 2006, p.165). LOC refers to people's concept about the reasons for the incidents and interpretations which could be attributed to achievements or losses (Njus & Brockway, 1999).

The other variable focused in this research is vicarious learning. Many scholars have discussed the concept of "Vicarious Learning" which has been grounded in social learning theory by Bandura (1977) and is relevant to the idea of knowledge transfer envisaged by Argote et al. (2000), which is based on the comprehension from a model's practice that can assist the observer to infer solutions to fix the problems of his/her own situations. In other words, knowledge is constructed by observing or watching other's experiential procedure (Bandura, 1986; Gholson & Craig, 2006). Furthermore, Gioia and Manz (1985) defined that the vicarious learning refers to a method by which "an observer learns from the behavior and consequences experienced by a model rather than from outcomes stemming from his/her own performance attempts" (p. 528).

### Statement of the Problem

College students have an exclusive experience after a long term disciplined and formal life of schools. They are excited about new environment, independent learning, autonomy, and a fresh circle of friends. There are chances that they may find ways to a successful career or lose the positive direction. In such a context, a student's attribution dimension plays a significant role in regulating her studies. Many studies mentioned how internal locus of control directs students to learn vicariously and observe the things to inculcate as a learning

asset. To provide empirical evidence and bridging the gap of evidence, the researchers intended to find the association of Academic Locus of Control with Vicarious Learning of college students, which could enhance their potential and internal controllability.

### **Objectives of the study**

1. To find out the locus of control of intermediate students in district Lahore.
2. To determine the vicarious learning indicators of intermediate students at district Lahore.
3. To investigate the relationship between "Vicarious learning and Locus of control" of intermediate level students.

### **Hypothesis**

- 1) **H<sub>0</sub>**. There is no significant relationship between vicarious learning and locus of control of intermediate learners.

## II. LITERATURE REVIEW

### **Locus of control and Vicarious Learning**

The concept of Locus of Control is a significant facet of human psychology and it was envisaged in 1966 by Julian Rotter. It is one's general belief about fundamental reasons for different happenings in one's life. Individuals have dissimilar beliefs, which control their aims and destinations. In other sense, the destiny of a person can be controlled by himself, God, fate or some other authorities and people. This belief can be observed on two boundaries of a scale; external locus of control and internal locus of control (Naik, 2015). Indeed, "Locus of control is a psychological construct that identifies an individual's controllability of beliefs that can be exercised over his/her environment" (Grimes, Millea, & Woodruff, 2004. P. 129). Anakwe (2018) described that locus of control extensively refers to the capacity to handle the vagueness of condition. Indeed, it categorizes the responses for specific situations. If a person is confident about his/her control over luck and surrounding; he/she can react positively to novel situations.

Razmerfar (2017) explored that LOC is a psychological construct that refers to people's beliefs for controlling the actions that can influence their lives as well as it is also associated with the results, just like success, failures, rewards and penalties; which are tagged as reinforcements. Moreover, it highlights the personality construct about how individuals recognize their capacity to cope life happenings (April et al., 2012). In the same way, Hill (2016) described that individuals could be extremely internal or external. Essentially, LOC is a trait; people who are internally controlled have confidence in their own ability or struggle for reinforcement to success. Comparatively, people who are externally controlled have confidence in external factors opportunity, fortune and other dominants rather than blaming their own less struggles for getting reinforcements. Furthermore, Miu (2016) explained that most of the people handle the pressure of the situations beyond their choices, behaviours as well as practices that can affect their attainments.

Numerous studies have proved that locus of control is a significant psychological indicator to predict student's academic success or failure (Zimmerman et al., 1992; Randhawa, Beamer & Lundberg, 1993; Pajares & Miller, 1994). Learners having internal locus of control affirm that educational attainments are dependent on their own endeavors; while learners having external locus of control confirm that educational achievements are contingent on contextual elements or authoritative people (Boyras et al., 2019). For instance, Kutanis et al., (2011) worked in the field of education and analyzed the effect of locus of control on students' learning processes. They determined that locus of control has a vital influence on method, ability, and noticing factors of the learning dimensions. The findings of the research of Kutanis et al., (2011) show similarities with the studies conducted by Basim and Sesen (2006) and Chen and Silverthorne (2008). Similarly, Razmerfar (2017) and Ghasemzadeh (2011) concluded that learners having internal locus of control performed good in academic achievements as compare to the students having external locus of control.

According to Gholson and Craig (2006), the significant concept of vicarious learning in human's learning psychology, has been linked to ancient Bandura's (1962) endeavors on modeling with kids. It had been continued with diverse tags; just like, social learning and observational learning (e.g. Bandura, 1977, 1986; Rosenthal and Zimmerman, 2014; Lee et al., 1998). Furthermore, Posen and Chen (2013) explored that information is transmitted through observational sources in vicarious learning; just like, noticing data available on the webpage of opponent (Simon & Lieberman, 2010), as well as, by the sharing of personal

information. Hence, vicarious learning occurs due to deliberate distribution of information through a person or to search information through someone else. Similarly, in learning environment, vicarious learning has always been considered an important procedure, relevant to eagerness and capability of either a unit or an individual to comprehending the useful performance of others (Bresman, 2013). Argote (2015) described that “individuals learn vicariously from the experience of others, organizations also learn vicariously from the experience of other organizations” (p. 154). Learning through the experiences of others’ (vicarious) practices have been acknowledged as vital for administrative as well as personal successes (Davis & Luthans, 1980; Manz & Sims, 1981; Argote et al., 2000; Bresman, 2013). The success and failure experiences of others can prevent to “reinvent the wheel” as well as permits management and staff members to decrease inadequacies, to improve their knowledge level and to enhance production (Bresman et al., 1999; Argote et al., 2001; Kim & Miner, 2007; KC, Staats & Gino, 2013). Hence, the rationale of vicarious experiences with information and independency should be realized and practically implemented in diverse organizations (Myers, 2018). Furthermore, Podges and Kommers (2017) speculated that vicarious learning can play a significant role in diverse groups of learners. Hina, Saqib and Khan (2019) concluded that vicarious learning is playing a significant role, when the education and other resources of learning are not available. They reported that educated females utilized vicarious experience along with the other ways of learning. On the other hand, illiterate females learned from peers. Most of the education is processed through modeling or imitation (Benight & Bandura, 2004). Moreover, Hoover et al. (2012) explored that learning through experience, along with vicarious (observation) process indeed leads to direct experiential education as well as augment academic achievements. Pointedly, modeling and vicarious process are proved to be effective and helpful for learners in several academic fields (Koenig & Zorn 2002). Interestingly, children learn through observation of living human beings, humans’ videotapes, cartoons and audio-recordings (Bandura, 1986; Rosenthal & Zimmerman, 2014; Rogoff et al., 2003; Gholson & Craig, 2006). In short, the current research combines the two ideas of how college students think of themselves and how they are influenced by the characters around them for having a better learning.

### III. METHODOLOGY/MATERIALS

The research in hand was designed in quantitative paradigm for investigating the relationship of Locus of control with Vicarious Learning of intermediate students and by method it is correlational research. It explored the association between Vicarious Learning and locus of control at intermediate level learners. In present study, the Locus of control is predictor variable (independent variable) and Vicarious Learning is criterion variable (dependent variable). Furthermore, data for investigating the relationships between independent (X, Predictor) variable and dependent (Y, Criterion) variable was collected through two separate questionnaires.

#### **Population and Sample of the study**

Out of 200 colleges of district Lahore, the study sample was consisted of 1000 students of intermediate, session 2017-2019. The cluster sample technique was used to select the 1000 intermediate students from different Government Degree colleges from five tehsils of Lahore district. The first year and second year college students were given the questionnaires to provide data for their Locus of control and Vicarious learning.

#### **Procedure and Data collection of the study**

The researcher personally administered two questionnaires to each intermediate; first year and second year student during the months of September 2018 to December 2019 at colleges of district Lahore. Vicarious learning and Academic Locus of control scales were used to measure both variables. The return rate was approximately 90% (900 randomly selected participants). Additionally, 100 subjects were selected to achieve the target of 1000 students.

## Instrumentation

As mentioned above, the researcher measured two variables for each of the selected participants with the help of following instruments:

### (1) Locus of Control Scale

“Academic Locus of Control Scale for College Students by Trice (1985)” was utilized for probing Locus of Control of the selected sample. The scale’s internal consistency was reported .70 (KR—20 statistics) and test-retest reliability was confirmed as .92 with five weeks gap. Construct validity was determined as .50 correlations (Curtis & Trice, 2013).

### (2) Vicarious Learning Scale

Vicarious learning was examined through a self-constructed questionnaire, which was prepared by the researcher with the help of subject specialists, in the light of review of literature. As well as the validity and reliability of constructed instrument was determined through the pilot testing with 10% of the sample (100 intermediate students). The Chronbach alpha was 0.778, whereas, the split-half reliability was 0.789. The Standard deviation was 23.25.

### Data Analysis Procedure

The most appropriate and well known formula for finding association of two variables, “Pearson’s r correlation” was used to test the hypotheses of relationship between quantitative variables, “locus of control and vicarious learning”. A regression analysis was also conducted to determine the predictability of variables.

## IV. RESULTS

### Correlation

Table No. 1

*Descriptive statistics for internal locus of control and vicarious learning*

Descriptive Statistics			
	Mean	Std. Deviation	N
Internal Locus of control	11.57	3.048	1000
Vicarious Learning	5.450	.589	1000

The Table 1 showed that the Mean score of 1000 participants’ average Internal Locus of control was  $M = 11.57$  with Standard Deviation of  $SD = 3.048$ . Whereas, the Mean score of vicarious learning of 1000 intermediate students was  $M = 5.450$  with Standard Deviation  $SD = .589$ .

Table No. 2

*Correlation between internal locus of control and vicarious learning of students*

Correlations			
		Internal Locus of control	Vicarious Learning
Internal Locus of control	Pearson Correlation	1	.692*
	Sig. (2-tailed)		.032
	N	1000	1000
Vicarious Learning	Pearson Correlation	.692*	1
	Sig. (2-tailed)	.032	
	N	1000	1000

\*. Correlation is significant at the 0.05 level (2-tailed).

Table no 2 indicates that a Pearson correlation was run between internal locus of control and vicarious learning of 1000 intermediate students. It indicates that a significant moderate to high positive correlation exists between the internal locus of control of college students with their vicarious learning trait, i.e:  $r^2 = .692$ . The correlation value sufficiently provides evidence that students having internal locus of control have better vicarious learning which may lead better academic achievement.

## Regression

Table No.3  
*Model summary for internal locus of control and vicarious learning*

<b>Model Summary<sup>b</sup></b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.692 <sup>a</sup>	.314	.304	.552

a. Predictors: (Constant), Internal Locus of control

b. Dependent Variable: Vicarious Learning

The regression analysis between the variable revealed that the internal locus of control sufficiently predicts students' vicarious learning with an R=.692 which means students with high internal locus of control show better vicarious learning. The LOC is defining 31.4 % variation of the variable "Vicarious Learning".

Table No. 4  
*ANOVA table for regression*

<b>ANOVA<sup>a</sup></b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.554	1	1.554	5.096	.032 <sup>b</sup>
	Residual	8.538	998	.305		
	Total	10.092	999			

a. Dependent Variable: Vicarious Learning

b. Predictors: (Constant), Internal Locus of control

The ANOVA table of regression is showing significant difference in the groups having different internal locus of control with F (5.096)=P=.032<.05.

Table No. 5  
*Regression Analysis for internal locus of control and vicarious learning*

<b>Coefficients</b>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	34.329	.402		15.742	.000
	Internal Locus of control	.076	.034	.692	2.258	.032

a. Dependent Variable: Vicarious Learning

b. Independent Variable: Internal Locus of Control

The multiple linear regression table above, predicts that Vicarious learning of Intermediate students depends on their Internal Locus of Control. There is found a significant regression equation, (F(1,998) = 5.096. p < .032), with an R<sup>2</sup> of .652. Participants' predicted Vicarious Learning is equal to 34.329+ .076. Participants' Vicarious learning increased .076 for each unit of Locus of Control. Therefore, intermediate students' Vicarious learning increased up to .076 for each one degree of Internal Locus of control. Finally, it can be said that there is significant positive moderate association and predictability of internal locus of control for students' vicarious learning and the null hypothesis that, 'there is no significant relationship between vicarious learning and locus of control of intermediate learners' is rejected with sufficient evidence.

## Implications of the Research

The study in hand has important implications for the selection of teaching methods in the classroom, because the current research highlighted the relationship of Internal Locus of control with Vicarious Learning amongst intermediate students. This investigation has presented further guidelines for curriculum designers to select the curricular content or co-curricular activities for Vicarious Learning of learners. Moreover, teaching learning activities could be planned in the light of internal/external locus of control and vicarious learning behaviours of learners. So that, every learner can get personal chance and attention in academic process. Furthermore, the two personality variables (Locus of control and Vicarious learning) could also be helpful in the selection of professional fields and further study areas of pupils. Additionally, based on these

two personality constructs, universities can conduct counseling and guidance programs for career direction and for higher education of the students.

## V. DISCUSSION& CONCLUSION

The results of current research showing moderate positive association of Internal Locus of Control with Intermediate students' Vicarious Learning support many previous research like Alias et al. (2016) who inferred that Locus of control is an important predicting factor for academic achievements and NeJati et al. (2017) who concluded that locus of control and academic achievement is correlated.

The findings of this research are further aligned with Gülveren (2008) who reported that people having internal locus of control can influence their life situations with positive ego and can do whatever they want. Similarly, Hasan & Khalid (2014) also highlighted that high and low achievers of BS final year both had internal Locus of control which match with the research in hand. The results of Mathur (2014) that college students with an internal locus of control have positive attitude towards life and could be expected to perform better in their academics, Majzub et al. (2011) that internal locus of control was positively correlated with educational accomplishments amongst females are supporting the current research.

Besides, Developmental psychologists and Neuroscientists revealed that learning by imitation is significant in human-beings and in other several species (Meltzoff, 2005) and the present research is in line with several studies like Lave and Wenger (2005), who reported that experiences and comprehensions are continually interacted and they are labeled as "mutually constructive" (p.152), and Roberts (2010) who claimed that students learn and reflect through vicarious learning. Moreover, teachers and learners both can avail diverse experiences and explanations in multiple environments. Similar to the present study, Agustiani, Cahyad & Musa (2016) found that self-efficacy, self-regulated learning and academic attainments are positively correlated. Thus, the current research supports many previous researches in the context of Pakistan and identifies that Intermediate students having Internal Locus of Control tend to learn vicariously i.e. from peers, teachers, environment, events and media which implicates that institutions need to provide holistically enriched conducive environment for Intermediate students.

## VI. RECOMMENDATIONS

The current research has identified the meaningful relationship of internal Locus of Control with Vicarious Learning for academic achievement of intermediate students. Therefore, curricular, co-curricular activities, educational strategies, teaching methods and assessment process can be designed in accordance with the two significant characteristics (Locus of control and Vicarious Learning) of students; so that, every learner can avail personal opportunity and attention for his/her study.

In the light of above findings, following recommendations are presented:

- Teachers should take care of "teacher student interpersonal relationship" and give respect to their students during the entire study for enhancing their self-regulation, self-actualization (internal locus of control) and vicarious learning skills.
- Instructors should engage the learners in problem solving method and concrete observation for enhancing their perceived self-control, vicarious skills and extrinsic regulation to achieve their set targets.
- In addition, teachers should involve the learners in different projects, and they must be given enough freedom for active participation; it will augment their internal Locus of control, self-direction and vicarious experience for academic attainments.
- For the development of internal Locus of control in students; teachers should get the opinions and logics from students regarding the selection of teaching learning strategies for creating an effective classroom environment.
- It is recommended to involve learners in self-direction, self-discipline and self-evaluation.



- Teachers need to use collaborative learning strategies for learners having diverse mental capability, pace, interest, potential or cultures; consequently, their perceived internal control, vicarious learning, motivational level and internal self-regulation would be enriched.
- Teachers need to involve the diverse students' groups in multimedia and tutorial presentations, so that, they can recognize their own abilities and learn vicariously from their fellows.
- Teachers need to engage the learners in co-curricular activities (i.e. trips, sports, drama etc.) for enhancing their internal controllability and observational (vicarious) learning.
- Curriculum designers should design the curricular content and co-curricular activities in such a meaningful way for all levels; so that, all students irrespective of their individual differences could be actively involved in teaching learning environment.
- Teachers must utilize Discussion method through the participation of several students' groups to augment their cognitive abilities, internal controllability and vicarious learning through peer's experiences or ideas.
- Instructors also need to handle multiple intelligence (Howard Gardner) and individual differences of learners with research-oriented activities for improving their vicarious learning, self-controllability, self-efficacy and self-actualization.
- Teachers should concentrate on setting specific, challenging yet attainable goals for students which could increase their personality traits of intrinsic & extrinsic motivation, self-energizing, self-efficacy, self-direction and internal locus of control.
- As teachers are supposed to be the immediate role models for the students; therefore, they must present positive and influential behaviour in front of their pupils during teaching learning process. Moreover, students must also be engaged in presenting different models, projects and assignments, so that, their observational or vicarious abilities and internal controllability could be developed.

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