

# LOCUS OF CONTROL: TEACHERS' NEGLECTED ATTRIBUTE TOWARDS STUDENTS' ACHIEVEMENT SCORES IN FACING DIVERSE SOCIOECONOMIC STATUS

Mehboob UI Hassan, Rafaqat Ali Akbar

University of the Punjab, Pakistan

E-mail: hassanbhattig@hotmail.com, rafaqat.ier@pu.edu.pk

## Abstract

*Irony of humans' resiliencies to grasp life achievements has been remaining one of the important debates since long ago. Controversy prolongs when few report it destiny, whereas remaining claim individual's endless effort. Origin of social learning theory stoppage caused entire debate and declared that teachers' psychological attribute; locus of control is a key construct that actively affects students' success / failure. Present research was conducted to explore the effect of teachers' locus of control on students' achievement scores in facing diverse socioeconomic status enrolled in public sector secondary schools of District Kasur; Punjab-Province. Researchers followed quantitative research adopting ex-post-facto design to investigate a burning dilemma on the sample of conveniently selected 1100 respondents. After ensuring ethical considerations from the respondents, researchers collected data from teachers through administering Rose and Medway (1981) Teacher Locus of Control Scale after obtaining unfettered and unrestricted permissions from the authors. Researchers obtained students' achievement scores and their family socioeconomic status from parents, teachers and head teachers respectively. Researchers' pilot tested scale on the sample of 100 respondents to confirm Cronbach's Alpha reliability statistics is .850. Results of regression analysis reported that teachers' locus of control has affected 66%, teachers' demographic variables 84.30% and parental socioeconomic status have affected 74.70% of students' achievement scores. Research recommends that Govt. provide in-service training to secondary school teachers on their neglected psychological attribute; locus of control that confirms worth-seeing importance in obtaining students' achievement scores and grants monthly stipend to passed ninth grade students having 85% marks in annual examinations focusing their parental socioeconomic status.*

**Keywords:** locus of control, social learning theory, teachers' locus of control, students' achievement scores, socioeconomic status.

## Introduction

Concern of present research is based on social psychological construct; locus of control having strong roots with social learning theory was put forward by Jollian. B. Rotter (Mearns, 2009; Rotter, 1992; Rotter, Lah, & Rafferty, 1992), an important construct of human personality (Williams, 2010), considered in diverse aspect of teaching psychology; still in ongoing practice. Social learning theory confirms strong relationship between individual's personality and environmental interaction. Rotter reports that human personality is a comparatively constant set of potential for retorting against condition in a particular way. He further states that human

personality and behavior are changeable variables that influence thoughts, behavioral and environmental handling; an optimal way of conceiving people (Rotter, 1992; Zimmerman & Cleary, 2009). Human always remains an independent seeker under external or external environmental influence. Behavioral focus and / or automatic response are due to environmental stimuli interrupted through entire learning and experiences. Humans' imperative achievement in seeking goal achievements, maximizing reinforcement and beware punishment is a key component in this regard (Rotter, 1992; Zimmerman, 2008; Zimmerman & Cleary, 2009).

Rotter contradicts with Freudian thoughts that human behavior is derived from his / her nature, the source of entire learned human beliefs. He focused towards proper usage of "treatment methodology model" after individual's learning experience to strengthen better student - teacher relationship. Today's cognitive behavioral psychologists are treating human beings by focusing treatment methodology model. Moreover, roots of social learning theory originated from the work of one of the eminent American Psychologists Albert Bandura. Individual's cognitive working procedures are interlinked with the area of neuroscience; central researchable field for scholars (Mischel & Shoda, 1995). Operating function of magnetic resonance imaging; fMRI, declared that sympathy becomes visible when components of human brain work together by focusing situations of their past experiences. Understanding becomes clear when active parts of human brain feel pain during one's inspection about real situation (Decety & Jackson, 2006). Active functions of human brain focus on their perception; cognitions and motor aspects boost societal relationships. Individual's event related potential is the best instrument to gauge their cognitive functioning (Knoblich & Sebanz, 2006).

Locus of control is a cognitive behavioral psychological attribute that controls one's life events (Buluş, 2011; Rotter, 1966; Shepherd, Owen, Fitch, & Marshall, 2006), builds an interlink-age between one's distinctiveness and / or incidence results (Flouri, 2006; Lefcourt, 1976), human forwarded planner of educational and social activities (Deniz, Traş, & Aydoğan, 2009), happens as the consequences of anticipation thoughts (Dağ, 2002), shapes human behaviors (Dönmez, 1983) and interprets people experiences gained from the environment in terms of personal actions, achievements and rewards (Lee-Kelley, 2006). Locus of control is a bipolar construct; internal and external (Adu & Oshati, 2014; Lee-Kelley, 2006; Littunen & Storhammar, 2000; Senler, 2016). Internal represents one's continuous belief system on his / her potentials (Littunen & Storhammar, 2000), passion to change consequences, hard work and calculating actions (Golparvar, 2014; Littunen & Storhammar, 2000) and assumes a positive unforeseen event between one's performance and achievements. Internals have optimistic imaginations for national development and participate in the state progress as well (Atibuni, Ssenyonga, Olema, & Kemeza, 2017; Hanushek, 2011). Externals claim that achievements, success and awards are due to others' unbreakable potential, destiny and favoritism (Golparvar, 2014). Externals lean to undergo the burden with intense pressure and nervousness with low self-confidence during teaching learning process (Mearns, 2009; Williams, 2010; Zimmerman, 2008).

Concept of teacher's locus of control was developed from the work of Rotter's locus of control (Cook, 2012; Hou, Doerr, Johnson, & Chen, 2017). Rotter put forward mathematical formula to understand one's psychological situation:

$$BP = f(E \& RV), \text{ Whereas;}$$

BP = Behavioral potential  
 $f$  = function  
E = Expectancy  
RV = Reinforcement value

Rotter stated that equation is merely showing simple strong association between individual's behavioral potential as working of expectancy and reinforcement value. Equation shows derived estimation of individual's working towards target accomplishment (Mearns,

2006; Williams, 2010). Teachers' locus of control is teachers' opinion on their responsibilities in account of students' behavioral and educational attainments towards constructive / destructive achievements. It is the teachers' personal attribute that controls students' behavior from positive or negative way (Toussi & Ghanizadeh, 2012). Teachers are confident in their actions and activities conducted in classrooms focusing students' behavioral and educational achievements (Cheng, 1994; Kremer, 1981; Rose & Medway, 1981).

Exploring the effect of teachers' locus of control with multidimensional constructs has been remaining paramount investigation for stakeholders (Abdullahi, 2000; Boštic, 2010; Burrell, 1994; Mathur, 2014; Toussi & Ghanizadeh, 2012). Literature reports that teachers' locus of control is a measurable construct that influences students' achievement scores (Cassidy & Eachus, 2000; Wang, Kick, Fraser, & Burns, 1999). Research conducted by Burrell (1994) was to explore the impact of teachers' self-efficacy and locus of control on students' achievement scores on the sample of 1358 respondents in Tennessee State. Researcher administered *Rose and Medway (1981) Teachers' Locus of Control Scale* and *Rand Efficacy Scale* already used in studies in funded projects to collect data from teachers (Greenwood, Olejnik, & Parkay, 1990). Students' achievement scores were collected by administering standardized achievement test, constructed by McGraw-Hill. Reliability of scale was confirmed by applying *Kuder-Richardson* formula; .81 and .71. Results reported small significant correlation between teachers' self-efficacy and gender, ( $r = .394^{**}$ ,  $n = 130$ ,  $p < .01$ ), moderate association between teachers' age and students' achievement scores ( $r = .521^{**}$ ,  $n = 130$ ,  $p < .01$ ), strong correlation between teachers' teaching understanding and students' achievement scores ( $r = .782^{**}$ ,  $n = 130$ ,  $p < .01$ ), significant moderate association between teachers' self-efficacy and locus of control scale ( $r = .454^{**}$ ,  $n = 130$ ,  $p < .01$ ).

Quantitative research conducted by Abdullahi (2000) was to explore the effect of locus of control, self-esteem, achievement inspiration and educational performance applying *ex-post-facto* research design on the sample of 1335 respondents using stratified random sampling technique. Data were collected administering three questionnaires: *Achievement Motivation Questionnaire* consisted of 36 items, self-esteem questionnaire, 30 items mode of 5-point Likert type options and *Rotter's Locus of Control Scale* having bi-serial options. Reliability of questionnaires confirmed through applying appropriated techniques; .65, .74 and .78 respectively. Educational achievement scores were obtained from students enrolled in Nigerian universities. Results of multiple regressions depict that teachers' locus of control, self-esteem, inspiration and educational performance have affected 10% on students' achievement scores with construction of significant regression equation ( $F(3, 1333) = 1.192$ ,  $p < .01$ ). Quantitative research was conducted by Kirkpatrick, Stant, Downes and Gaither (2008) to investigate association between teachers' locus of control and students' achievement scores on the sample of 304 students. Researchers administered *Levenson's Locus of Control Scale*; it consisted of 24 items mode of 5-point Likert type options and *Rotter's Locus of Control Scales*, having 29-items mode of bi-serial categories. Instruments were used to gauge whether the function of both instruments remains the same or differs. Psychology students' educational achievement scores were obtained from the end of the second and the third semester. Results of *Pearson Product Moment Correlation (r)* depict significant moderate relationship between Levenson's locus of control and students' achievement scores ( $r = .596^{**}$ ,  $n = 231$ ,  $p < .01$ ) and significant negative correlation between Rotter's locus of control scale and students' achievement scores ( $r = -.003^{**}$ ,  $n = 231$ ,  $p < .01$ ). Research conducted by Buluş (2011) was to explore the association between teachers' goal orientations, locus of control and students' achievement scores in Turkish educational institutions. Research was quantitative leading to descriptive in nature on the sample of 270 respondents: 78 male and 192 females ranging from 22 to 33 years of age from Turkish Pamukkale University. Data were collected by administering *Goal Orientation Inventory* constructed by Middleton and Midgley (1997) consisting of 30 items

and Sadowski, Blackwell and Willard (1986) scale consisting of 20 items based on 5-point Likert type options. Results reported significant weak relationship between goal orientation and students' achievement scores ( $r = .35^{**}$ ,  $n = 268$ ,  $p < .01$ ), teachers' locus of control and students' achievement scores ( $r = .14^{**}$ ,  $n = 268$ ,  $p < .05$ ). Results further report that goal orientation and teachers' locus of control act as significant predictors on students' achievement scores with the formation of significant equation ( $F(1, 268) = 3.837$ ,  $p < .01$ ).

Socioeconomic is a combination of two aspects; experiment of his / her work place and, income status and societal position of the family; occupation, source of income, and parental education and is a collection of diverse variables; parental occupation, parental education, locality and wealth (Akhtar, 2012; Hastings, van Weelden & Weinstein, 2007; Malik, 2012; Sirin, 2005). Parents' socioeconomic status has great collision on students' achievement scores. It pampers parental behavioral, emotional and social inter-personal relationships (Sirin, 2005). Family Stress Model proposed that socioeconomic status negatively affects their parenting and socialization strategies. These practices are associated with parents' interruptions that are expected to reduce their behavioral, emotional, social inter-personal and physical well being for their off springs. It is clear that students' successful achievements are peril when children are endangered by this hypothesized economic stress process. Families, who are stable, affording and have good source of income, invest maximum money on their child to achieve better education. Family investment model claims that parents more invest on their children education as it is not needed (Bourdieu, 1990; Bradley & Taylor, 2007). Family stress model has diverse aspect to socio-economic status of families (Brasington, & Hite, 2012; Buckley & Schneider, 2007). Model further focuses on the parental living standard; food, residence, location, health, clothes, physical appearance and personality that support students toward better achievements (Bussell, 1998). Model of Interactionism concentrates on two societal aspects: carefulness and societal gathering. Both aspects have great concerns with the parental behavior and are totally different from each other. It further stated that societal aspect of carefulness moves towards socioeconomic status and a little bit issues, tasks, situations, problems of a single child. Model focuses on parental socioeconomic status and students' achievement scores (Hastings & Weinstein, 2008; Hoxby & Murarka, 2009). There has been remaining controversy due to parental economic boundaries. Parents have higher income than normal working class but more than upper middle class: Engineers, Lawyers, Doctors, business owners of middle class and upper class.

School is a place that works as a mediator between parental socioeconomic status, sense of protection and students' achievement scores (Benbenishty & Astor, 2005; Wang & Holcombe, 2010). Studies reported that socioeconomic is a good predictor on students' achievement scores (Berkowitz, Moore, Astor, & Benbenishty, 2017; National Center for Education Statistics, 2013). Students facing low socioeconomic meagerly effect on their educational achievements (Brand, Felner, Shim, Seitsinger, & Dumas, 2003; Schagen & Hutchison, 2003) and are victims of poor educational achievements (Sirin, 2005). Liu, Peng and Luo, (2019) framed meta-analysis on the sample of 215,649 respondents of China to measure the strength of association between socioeconomic status and students' achievement scores. Results of *Pearson Product Moment Correlation (r)* claim moderate relationship between parental socioeconomic status and students' achievement scores ( $r = .243^{**}$ ,  $n = 215647$ ,  $p < .05$ ). Saifi and Mehmood (2011) conducted a study to investigate the influence of socioeconomic status on students' achievement scores in Pakistan. Self-developed questionnaire used to collect data from the respondents. Findings state that parental education has affected 68%, father occupation 60.02%, mother occupation 64.5% and parental income level have affected 62.09% on students' achievement scores.

Pakistan is developing its position in demographic, cultural, health and nutrition indices whereas less developed in housing, educational and political affairs that marginalized its 48th

position in third world and 21<sup>st</sup> position in Asian countries (Asghar, Attique, & Urooj, 2009; Khan & Zerby, 1981). Pakistan is showing its immense worth in economic status other than labor and has its sound economic status in the third world as well (Khan & Zerby, 1981). Literature reported that socioeconomic position of Pakistani inhabitants is still in considerable variations (Akhtar, 2012; Javaid, Akhtar, & Abbas, 2012; Javed, Khilji, & Mujahid, 2008; Saifi & Mehmood, 2011; Suleman, Aslam, Hussain, Shakir, & Zaib-Ul-Nisa, 2012). In Pakistani community, people belong to a diverse socioeconomic status. Clear picture of current Pakistani inhabitant with a diverse socioeconomic status is glimpsed by Rahman (2004) and Malik (2012) in their scholarly work; great job for future researchers is given below:

**Table 1**  
*Parents' monthly income having financial socioeconomic status in Pakistani rupees*

Class	Monthly salary ranges
Working (lower) class	Up to 5000
Lower middle class	5001-10,000
Middle class	10,001-20,000
Upper middle class	20,001-50,000
Lower-upper class	50,001-100,000

*Source:* Rahman (2004, p. 155)

#### *Research Problem*

Students that have remained one of the curious stakeholders of the education sector, remained suspicious, wondered and pondered that educational institutions lack physical facilities and are less portraying the quality of education. Studies reported that teachers are deficit in professional skills, poor pedagogical knowledge, shortage of motivational abilities, dearth of temperament, weak communication, deprived personality, fewer usage of cognitive abilities, lack of confidence and poor practices on instructional strategies that cause students' low achievement scores (Adu, Tadu, & Eze, 2012; Reynolds & Weigand, 2010). Students discussed that standard of individuality and non-interference which usually explain teachers' characteristics; considered teachers' weak aspect regarding confidence on his / her efficacious practices (Ashton & Webb, 1986; Woolfolk, Rosoff, & Hoy, 1990). Hopefully these restrictions put weak effect on students' achievement scores (Lavié, 2006; Louis & Kruse, 1995). Categorically literature reported that parents, educational institutions, classroom environment, poor qualification, students' drop-out, socioeconomic status, absconder and teachers' locus of control have a significant effect on students' achievement scores (Aremu, 2004; Baek & Choi, 2002; Benbenishty & Astor, 2005; Brand, Felner, Shim, Seitsinger, & Dumas, 2003; Cassidy & Eachus, 2000; Wang & Holcombe, 2010; Wang, Kick, Faser, & Burns, 1999). Moreover, it has been remaining one of the debates here in Pakistan that Public sector educational institutions are less portraying their education in its true spirit. It is one of the observations of the authors that parents, teachers and societal members are continuously claiming that students' enrollment and achievement scores in public sector schools are going to be declining gradually. Even though, Government invest billion rupees, established attractive and furnished computer labs, hire qualified staff, provides free textbooks to students, arrange co-curricular activities, maintain school infra-structure and meet health and security measure to cope the educational standards but all in vain. On the other hand, teachers report that psychological, locus of control

and economical construct, socioeconomic status are burning dilemmas that significantly affect students' poor achievement scores. Both of the constructs are neglected in Pakistani community and need to be explored in the present scenario. Keeping in view, present research was framed to explore the effect of secondary school teachers' locus of control on students' achievements facing diverse socioeconomic status. Researchers are eager to explore current burning dilemma happening in male public sector in Pakistani schools since long ago as it is less possible for researchers to collect data from female teachers here in Pakistani Public sector educational institutions of District Kasur of Punjab-Pakistan.

### *Research Questions*

Present study was framed to examine the answers of the following questions:

1. What is the effect of teachers' locus of control on students' achievement scores?
2. To what extent teachers' demographic variables: locality, teaching experience, nature of employment, current position, professional qualification, educational qualification, medium of instructions and teaching subject influence students' achievement scores facing diversity of socioeconomic status?

### **Research Methodology**

#### *General Characteristics*

This research was quantitative in nature. Quantitative studies provide a real picture of current situation through providing concrete data collection and data analysis techniques towards ending research process. Researchers used *ex-post-facto* design to determine the effect of teachers' locus of control on students' educational achievement scores facing different socioeconomic status. Present research design facilitates the researchers to gather information, facts and figures on related research topic in query from undersized section / sample of the population in restricted interlude of time (Creswell, 2014; Fraenkel, Wallen, & Hayun, 2012; Gall, Borg, & Gall, 2003; Gay, Mills, & Airasian, 2006; Johnson, Onwuegbuzie, & Turner, 2007; Leedy & Ormrod, 2005; Pallant, 2016; Tashakkori & Teddlie, 2003).

#### *Population*

Population of the research consisted of 9750 students of tenth grades and 1993 male teachers working in rural and urban secondary schools of District Kasur, situated under constituency of Lahore Division of Punjab-Province. Researchers were eager to collect data from District Kasur because inhabitants are 88% mother tongue speakers; Punjabi, with 68.02% students' enrollment scores, students' learning score, 56.48%, students' retention rate 70%, having literacy rate 72.70% and fall at nineteenth position among all 37 District of Punjab Province (District Census Report of Kasur, 2000; Pakistan District Education Rankings, 2016).

#### *Sample*

Sample of the research consisted of 1100 respondents; 300 teachers and 800 students conveniently selected from rural and urban public sector secondary schools of District Kasur. Detail demographic information of teachers is listed below:

**Table 2**  
*Sample of teachers with demographic data*

No.	Variables	Categories	f	%age
1	Locality	Rural	89	29.6
		Urban	212	70.4
2	Method of teaching Instructions	English	92	30.6
		Urdu	209	69.4
3	Nature of employment	Regular	174	57.8
		Contract	127	42.2
4	Age	Below 30 Years	56	18.6
		31 to 40 Years	159	52.8
		41 to 50 Years	70	23.3
		More than 51 Years	16	5.3
5	Academic qualification	B.A / B. Sc/ B. S .Ed	56	18.6
		B.S / M.A/ M. Sc/ M. S .Ed	175	58.1
		M. S / M. Phil / PhD	70	23.3
6	Professional qualification	B. Ed	102	33.9
		B. S. Ed	44	14.6
		M. Ed	66	21.9
		M. S. Ed	89	29.6
7	Years of teaching experience	Below 10 Years	56	18.6
		11 to 20 Years	159	52.8
		21 to 30 Years	70	23.3
		More than 30 Years	16	5.3
		English	80	26.6
8	Teaching subject	Urdu	28	9.3
		Islamiat	9	3
		Pakistan studies	5	1.7
		Physics	47	15.6
		Chemistry	59	19.6
		Biology	27	9
	Mathematics	46	15.3	

Whereas, sample of students consisted of 800 respondents enrolled in the tenth grade having diverse socioeconomic status. Survey was carried out in respect of public sector secondary schools. Given table shows the pattern of students' demographic information used in the research.

**Table 3**  
*Sample of students with demographic data*

No.	Variables	Categories	f	%age
1	Students' age	13 to 14	90	11.2
		14 to 15	155	19.4
		15 to 16	303	37.9
		16 to 17	215	26.9
		17 to Onwards	37	4.6
2	Students' locality	Rural	391	48.9
		Urban	409	51.1
3	Students' marks	150 to 250	93	11.6
		251 to 350	600	75
		351 to 451	107	13.4
		Up to 5000	7	0.9
		5001-10,000	26	3.2
4	Students SES	10,001-20,000	83	10.4
		20,001-50,000	656	82
		50,001-100,000	28	3.5

#### *Instrumentation and Procedure*

Data from teachers were collected by administering *Rose and Medway, (1981) Teacher Locus of Control Scale* consisted of 28-dichotomous items; 14-items on teachers' inner and 14-items teachers' outer locus of control. Researchers obtained unfettered and unrestricted permission of administering *Teacher Locus of Control Scale* from the authors upon request. Cook and Bařtick, (2009) made little bit changes in *Rose and Medway, (1981)* standardized questionnaire. Researchers have concerned only male secondary school teachers and made changes in items no. 8, 14, 16, 17, 20, 21, 24 and 27 by deleting words "she and herself". To collect data from students, researchers constructed the sheet based on students' age, locality, achievement scores and their parental socioeconomic status with the cooperation of teachers / head teachers as they were a reliable and authentic source for the investigator. After finalizing instruments, researchers obtained a list of public sector secondary schools of District Kasur from Chief Executive Office / District Education Authority, Kasur, select schools, obtain teachers and head teachers cell numbers, make them telephonic calls, describe the purpose of study, make schedule and visited concerned schools on the prescribed date and time for data collection. Researchers pilot tested initial questionnaire on the sample of 50 respondents to confirm instrument's reliability. Pilot studies provide / forecast / predict instrument success / failure towards research ending process (Pilot, Beck, & Hungler, 2001). Reliability of the questionnaire was checked calculating Cronbach's Alpha reliability statistics .850.



*Data Collection and Analysis*

After assuring reliability of teachers' locus of control scale, researchers personally collected data from teachers. Before data collection school heads and teachers were contacted personally ensuring ethical considerations; respondents' volunteer participation, anonymity, confidentiality, no physical and psychological harm (Beskow, Botkin, Daly, Juengst, Lehmann, Merz, Pentz, Press, Ross, Sugarman, Susswein, Terry, Austin, & Burke, 2004; Bhutta, 2004; Bull & Lindegger, 2011; DeCosta, D'Souza, Krishnan, Chhabra, Shisaam, & Goswami, 2004; Kass, Maman, & Atkinson, 2005; Jegede, 2009). After sorting permission, formal request was sought to fill the research questionnaire. Before data collection, questionnaire was distributed among the respondents explaining the purpose of the research. Each question of questionnaire was briefly explained among teachers. Teachers were requested to answer each question as honestly as possible. Short directions to teachers were given to the statements of the instruments. Teachers were allowed to complete the questionnaire at their own pace. Furthermore, teachers were requested to fill the questionnaire individually. Being male researchers and due to cultural restrictions, it was not possible for the researchers to collect data from female teachers as female teachers feel shy, less provide their professional, educational and demographic data, are less cooperative and out of author's reach that's why researchers selected male teachers only, although researchers ensured ethical considerations among female teachers but all in vein. To collect data from students, researchers conveniently selected 800 secondary school students with the concerns / cooperation of parents, teachers and head teachers. Only those students were selected who passed ninth grade exams, conducted by Board of Intermediate and Secondary Education, Lahore. Currently there are working nine Boards of Intermediate and Secondary Education: BISE in Punjab-Pakistan. Researchers selected a sample from the tenth-grade students of District Kasur, falling under jurisdiction of Board of Intermediate and Secondary Education, Lahore-Punjab. Researchers obtained student achievement scores and their socioeconomic status from student admission forms with student, parents', teachers' and head teachers' concerns. Student admission forms consisted of their demographic information as per institutions requirements demand but researchers had concern with students' age, locality, achievement scores and their parental socioeconomic status. After data collection, researchers paid special gratitude to the respondents from the depth of hearts although it was hectic task for them. Contributions of respondents were highly appreciated. Prior to data analysis, researchers ensured normality of the data in applying parametric / non-parametric tests.

**Table 4**  
*Test of normality*

No.	Variables	Shapiro-Wilk's		
		<i>S-W</i>	<i>df</i>	<i>p</i>
1	Medium of instructions	.580	301	.931
2	Nature of job	.627	301	.618
3	Current position	.616	301	.537
4	Professional qualification	.812	301	.094
5	Educational qualification	.789	301	.690
6	Teaching experience	.842	301	.087
7	Teaching subject	.856	301	.321
8	Teachers' locality	.922	301	.085
Significance Correction				

Normality distributed data provide directions towards smooth results. Normality of the data aids researchers for employing parametric and non-parametric statistical techniques on targeted variables from the desired sample of the study (Casella & Berger, 2002; Driscoll, Lecky, & Crosby, 2000). Literature reported that Shapiro-Wilk's test is the best technique use to apply parametric test on normality distributed data,  $p > .05$ ,  $n < 2000$  (Anumudu, Adzharuddin, & Yasin, 2018; Elliott & Woodward, 2007; Field, 2009; Ghasemi & Zahediasl, 2012; Ho & Yu, 2015; Peat & Barton, 2008; Singh & Masuku, 2014).

## Research Results

Results were obtained to explore the effect of independent variables; teachers' locus of control with different demographic variables on dependent variables; students' achievement scores having diverse socioeconomic status. Researchers applied parametric statistics: simple and multiple regression analysis to the obtained results of the study.

**Table 5**  
*Effect of teachers' locus of control on students' achievement scores*

No. #	Model	B	SE	$\beta$	t	p
1	Students' achievement scores	95.044	9.038		10.516	.01
	teachers' locus of control	14.978	.620	.813	24.142	.01

Note:  $R = .813^a$ ,  $R^2 = .661$ ; ( $F(1, 299) = 582.833$ ,  $p < .05^a$ )

Table 5 reflects construction of significant regression equation ( $F(1, 299) = 582.833$ ,  $p < .01$ ) having .661 value of  $R^2$  with 66.10% explained variations were seen with standardized regression coefficient ( $\beta = .813$ ). Focusing result of regression coefficient, explanation of independent sample t-test report that teachers' locus of control is a significant predictor on students' achievement scores,  $t(298) = 24.142$ ,  $p < .01$ . Students' achievements were equal to  $94.313 + 14.978$  scores where teachers' locus of control was gauged in account of teachers' classroom control on students during teaching learning process. It is concluded that student achievement scores were increased 14.978 by applying teachers' locus of control on students in classrooms during teaching learning process.

**Table 6**  
*Effect of teachers' demographic variables on student achievement scores*

No.	Variables	B	SE	$\beta$	t	p
	Achievements scores	82.840	10.515		7.878	.01
1	Teachers' locality	-6.799	4.105	-.042	-1.656	.09
2	Teaching experience	9.837	4.237	.061	2.322	.02
3	Nature of employment	20.487	5.578	.137	3.673	.01
4	Current position	5.906	5.698	.039	1.036	.30
5	Professional qualification	4.507	1.530	.075	2.946	.01
6	Educational qualification	.039	4.806	.001	.008	.99
7	Medium of instructions	77.882	4.028	.821	19.335	.01
8	Teaching subject	.152	.717	.005	.213	.83

Note:  $R = .918^a$ ,  $R^2 = .843$ ; ( $F(8, 292) = 195.675$ ,  $p < .05^a$ )

Table 6 reflects that multiple regression was applied to explore the effect of teachers' locality, teaching experience, nature of employment, current position, professional qualification, educational qualification, medium of instructions and teaching subject on students' achievement scores showing formation of significant equation ( $F(8, 292) = 195.675, p < .01$ ) having .843 value of  $R^2$  with 84.30% explained variations were seen with standardized regression co-efficient in account of teachers' locality ( $\beta = -.042$ ), teaching experience ( $\beta = .061$ ), nature of employment ( $\beta = .137$ ), current position ( $\beta = .039$ ), professional qualification ( $\beta = .075$ ), educational qualification ( $\beta = .001$ ), medium of instructions ( $\beta = .821$ ) and teaching subject ( $\beta = .005$ ). Extending the results of standardized regression coefficient, outcome of independent sample t-test depicts that teachers' teaching experience,  $t(298) = 2.322, p < .05$ , nature of employment,  $t(298) = 3.673, p < .05$ , professional qualification,  $t(298) = 2.946, p < .05$  and medium of instructions,  $t(298) = 19.335, p < .05$  were significant predictors on students achievement scores while teachers' locality,  $t(298) = -1.656, p > .05$ , current position,  $t(298) = 1.036, p > .05$ , educational qualification,  $t(298) = .008, p > .05$  and teaching subject,  $t(298) = .213, p > .05$  were non-significant predictors on students' achievement scores. Students' educational achievements were equal to  $82.840 - 6.799 + 9.837 + 20.487 + 5.906 + 4.507 + .039 + 77.882 + .152$  scores where effect of teachers' locality, teaching experience, nature of employment, current position, professional qualification, educational qualification, medium of instructions and teaching subject were measured in account of their personal and educational potential used in schools. It is calculated that students' achievement scores were increased to 112.011 scores by putting teachers' educational potential on students in classroom.

**Table 7**  
*Effect of socioeconomic status on students' achievement scores*

No. #	Model	B	SE	$\beta$	t	p
1	Students' achievement scores	473.487	6.071		77.992	.01
	socio-economic status	49.929	1.680	.864	29.713	.01

Note:  $R = .864^a, R^2 = .747; (F(1, 799) = 882.891, p < .05^a)$

Table 7 claims formation of significant regression equation ( $F(1, 799) = 882.891, p < .01$ ) having .747 value of  $R^2$  with 74.70% explained variations were seen with standardized regression coefficient ( $\beta = .864$ ). Focusing result of regression coefficient, explanation of independent sample t-test report that students' socioeconomic status was a significant predictor on their achievement scores,  $t(298) = 24.142, p < .01$ . Students' achievements were equal to  $473.487 + 49.929$  scores where students' socioeconomic status was gauged in account of their better educational attainments. It is concluded that students' achievements were increased to 49.929 scores having better socioeconomic backgrounds.

## Discussion

Teaching process is carried out by a remarkable personality named teacher. Teacher acts as a nation builder and transfers his knowledge to the next generation. They fascinate students by using different attributes; locus of control to enhance students' behavior (Damar, Davwet, & Barnabas, 2016; Umer & Siddiqui, 2013) and obtaining better achievement scores. Teachers' locus of control refers to teachers' continuous beliefs in their abilities used in the classroom. Plethora of literature reported that it is one of the teachers' attributes that significantly effect students' achievement scores (Abdullahi, 2000; Adu & Oshati, 2014; Buluş, 2011; Burrell, 1994; Dinçyürek, Güneyli, & Çağlar, 2012; Hasan & Khalid, 2014; Kirkpatrick, Stant, Downes, &

Gaither, 2008; Melekewei, 2015; Nongtdu & Bhutia, 2017). Results of present research report that Pakistani secondary school teachers putting their 66.10% psychological potential in account of acquiring students' better educational achievements with formation of significant regression equation ( $F(1, 299) = 582.833, p < .01$ ) that support the research conducted by Dinçyürek, Güneylü and Çağlar (2012) and depict strong significant association between teachers' level of assertiveness and students' achievement scores ( $r = .92^{**}, n = 390, p < .05$ ), found small association between teachers' locus of control and students' achievement scores ( $r = .57^{**}, n = 390, p < .01$ ) and support the results of present research ( $F(1, 299) = 582.833, p < .01$ ) and other research conducted by Dinçyürek, Güneylü and Çağlar (2012) to explore the association between teachers' assertiveness, teachers' locus of control and students' achievement scores in Turkey. Results report strong significant association between research habits and students' achievement scores ( $r = .653^{**}, n = 598, p < .01$ ), teachers' locus of control and students' achievement scores ( $r = .58^{**}, n = 598, p < .01$ ) and exist teachers' self-confidence and students' achievement scores ( $r = .450^{**}, n = 598, p < .01$ ). Findings of present research support the results of research conducted by Adu and Oshati (2014) to explore the association between study habits, locus of control, teachers' self-efficacy and students' achievement scores that report strong significant association between study habits and students' achievement scores ( $r = .653^{**}, n = 598, p < .01$ ), teachers' locus of control and students' achievement scores ( $r = .58^{**}, n = 598, p < .01$ ) and exist teachers' self-assurance and students' achievement scores ( $r = .450^{**}, n = 598, p < .01$ ). Results of present research depict construction of significant regression equation ( $F(1, 299) = 582.833, p < .01$ ) having 66.10% affect of teachers' locus of control on students' achievement scores and support the research conducted by Melekewei (2015) to gauge impact of teachers' locus of control on students' effectiveness in the state of Nigeria that reflect small association between teachers' working experience with their efficiency ( $r = .056^{**}, n = 572, p < .01$ ) and teachers' locus of control with their effectiveness ( $r = .89^{**}, n = 572, p < .01$ ).

Pakistani secondary school teachers' demographic variables: locality, teaching experience, nature of employment, position, professional and academic qualification, medium of instruction and teaching subject have affected 84.30% students' achievement scores with formation of significant equation ( $F(8, 292) = 195.675, p < .01$ ) that to some extent support the results of quantitative research conducted by Nongtdu and Bhutia (2017) to investigate the relationship between teachers' locus of control and students' achievement scores that show no significant difference between internal locus of control and gender,  $t(795) = 1.28, p > .05$ , external locus of control and gender,  $t(795) = 1.02, p > .01$ , internal locus of control and locale,  $t(795) = 4.22, p > .05$ , external locus of control and locale,  $t(795) = 2.04, p > .01$ , internal locus of control and science and commerce students' achievement scores,  $t(138) = 9.87, p > .05$ , external locus of control and science and commerce students' achievement scores,  $t(138) = 4.58, p > .01$ , internal locus of control and science and arts students' achievement scores,  $t(725) = 11.72, p > .01$ , external locus of control and science and arts students' achievement scores,  $t(725) = 4.95, p > .01$ , internal locus of control and commerce and arts students' achievement scores,  $t(725) = .51, p > .01$ , external locus of control and commerce and arts students' achievement scores,  $t(725) = .80, p > .01$ . Locus of control is one of the important attributes that is a neglected aspect in Pakistani secondary school teachers' community. Pakistani scholars are less aware about burning debatable construct; locus of control that significantly affects students' achievement scores. Results of present research claim that teachers' locus of control has affected 66.10% students' achievement scores with construction of significant regression equation ( $F(1, 299) = 582.833, p < .01$ ). Hasan and Khalid (2014) conducted quantitative research in Pakistani to explore the association between teachers' locus of control and students' achievement scores. Results depict strong significant relationship between teachers' locus of control and students' achievement scores ( $F(1, 183) = 8.02, p < .01$ ) and also a large positive association exists between teachers' gender and locus of control ( $F(1, 183) = 5.55, p < .01$ ).

Socioeconomic status is one of the key predictors on students' achievement scores. Parents with diverse socioeconomic status enroll their students in public and private educational institutions for their students' better achievement scores. States maximize their potential in improving quality of teachers. Ultimate aim is to enhance students' achievement scores (Azam & Kingdom, 2015; Bau & Das, 2017; De Talancé, 2017). Results of present study claim that parents' socioeconomic status has affected 74.70% of their students' achievement scores with the formation of significant regression equation, ( $F(1, 799) = 882.891, p < .05$ ) that supports the findings of the study conducted by Li, Xu, and Xia, (2020) on the sample of 345 respondents of China and confirms that parental socioeconomic status and self-concept significantly correlate with students' achievement scores. Findings of present research also support the results of the research obtained after conducting meta-analysis on 58 studies published between 1990 to 2000 framed by Sirin (2005) on the sample of 101, 157 students, 6,871 schools and 128 districts of United States that reported medium relationship between parent socioeconomic status and student achievement scores ( $r = .27^{**}, n = 101,155, p < .05$ ) with 95% Confidence Interval, .28-.29 respectively. In Pakistani public sector educational institutions, students belong to diverse socioeconomic status. Categorically literature states that Eminent Pakistani social scientist Rahman (2004) worked a lot on parental socio-economic status and others also make their significant contribution to investigate the effect of parental socioeconomic status on their students' achievement scores (Akhtar, 2012; Ghazi, Nawaz, Shahzad, Shahzada & Rukhsar, 2013; Javaid et al., 2012; Saifi & Mehmood, 2011; Suleman et al., 2012). Parents have a diverse socioeconomic status: working class, lower middle class, middle class, upper middle class and lower upper class (Rahman, 2004). Pakistani families whose children enrolled in public sector educational institutions, monthly earn 5,000 to 100,000 Pakistani rupees (Javaid et al., 2012; Rahman, 2004). Due to diverse socioeconomic status, parents enroll their children in public sector schools. Results of present study reported that parental socioeconomic status has affected 74.70% of their students' achievement scores with the formation of significant regression equation, ( $F(1, 799) = 882.891, p < .05$ ) that supports the results of the research conducted by Javaid, Akhtar, and Abbas (2012) which report that parental socioeconomic status ( $\chi^2 = 43.407, n = 275, p = .05$ ) and students' health issues ( $\chi^2 = 26.330, n = 275, p = .05$ ) are key constructs that largely associate with students' achievement scores. The results of present research also consonance with the findings of the research conducted by Akhtar, (2012) that reported socioeconomic status has affected 23.50% of students' achievement scores with the construction of significant regression equation ( $F(1, 1578) = 2.037, p < .05$ ). Results of quantitative study conducted by Ghazi et al., (2013) in Pakistan reported small relation between: parental income ( $r = .19^{**}, n = 718, p < .05$ ), educational expenditure ( $r = .01^{**}, n = 718, p < .05$ ), father grade level ( $r = .21^{**}, n = 718, p < .05$ ), Govt. job holders ( $r = .04^{**}, n = 718, p < .05$ ), private job holders ( $r = .06^{**}, n = 718, p < .05$ ) and students' achievement scores that support the results of the present study.

## Conclusions

Individual's confidence on his / her abilities to carry out systematic performance demands confidence in situations. Teachers have to manage students' abilities focusing their psychological attribute: locus of control. Teachers' self-belief, grip on educational experience and confidence on their abilities significantly affect students' better achievement scores in a particular situation: teaching learning process. Teachers' locus of control is one of the important contributing factors that significantly affect students' achievement scores. Present quantitative causal comparative research concludes that teachers are applying their 33.90% less locus of control potential among students that is alarming situation for stakeholders. Secondary school teachers are still applying their traditional teaching strategies among students. They

use their personal experiences, indulge students applying non-directional activities that lead students towards poor achievement scores. On the other hand, locus of control is a globally recognized construct used for students during the teaching learning process. Construct has been neglected for decades that demands stakeholders' full intention. Pakistani secondary school teachers put their maximum teaching potential among students for acquiring their achievement scores. They indulge their educational, professional and social potential in this regard. Results of current research state that teachers' locality, teaching experience, nature of employment, current position, professional qualification, educational qualification, medium of instructions and teaching subject have less affected 15.7% of student achievement scores. Teachers working in public sector schools have more job securities, good salary packages and less hiring threats that directly affect their students' better achievements. They socially, morally and spirituality put their pedagogical potential among students; financially support students and to some extent provide free education during teaching learning process. In Pakistani public sector secondary school educational institutions, students are attached with diverse socio-economic families. Present study concludes that parents' socioeconomic status 25.3% has affected students' achievement scores. Students of working, lower middle, middle and few in numbers of upper middle class; daily wagers, shopkeepers, mesons, labors, peons, tenants and from other fields of lives are enrolled in public sector educational institutions where they pay Rs. 20- rupee fee of single students that is bearable for every single parent having 5000 to 50000 per month income in Pakistani rupees. Due to low students' socioeconomic status, students have positive attitudes towards earning money, financial standing thought with their parents and family problems significantly affect secondary school students' poor achievement scores. Whereas, a small percentage of students of upper middle class and all parents of lower upper class, having 50001 to 100000 monthly income in Pakistani rupees enroll their children in private sector educational institutions that are brands of the day. Socioeconomic status and medium of instructions have been remaining controversial since independence of Pakistan. Although, students having poor socio-economic status, indulge themselves in active teaching learning process enrolled in public sector secondary schools. When parents are earning better, it significantly affects students' economic and social life. Students having low economic status, take less interest in their studies and stand with their parents to burn the fire of hunger. On the other hand, Government invest billion rupees, provide free textbooks, arrange scholarships, support concession students on their monthly fee and arrange curricular and co-curricular programs that motivate students towards obtaining better achievement scores.

## Acknowledgements

Authors are thankful and pay their special gratitude to their friends, colleagues, parents, teachers and head teachers who voluntarily participated, give their time and share personal information in completion of this article. Last but not least, authors pay their special thanks to Dr. Abu Ul Hassan Faiz, Assistant Professor of Zoology, Women at University Bagh, Azad Jammu and Kashmir-Pakistan for his timely and sincere cooperation during completion of research article.

## References

- Abdullahi, O. E. (2000). Relationship among achievement motivation, self-esteem, locus of control and educational performance of Nigerian. *Nigerian Journal of Guidance and Counselling*, 7, 130-141. <https://doi.org/10.4314/njgc.v7i1.37048>
- Adu, E. O., Tadu, R., & Eze, I. (2012). Teachers' self-efficacy as correlates of secondary school students' academic achievement in southwestern Nigeria. *Discovery*, 2(4), 8-16.

- Adu, E. O., & Oshati, T. (2014). Psychological variables as correlate of students' educational achievement in secondary school economics in Oyo State, Nigeria. *Journal of Psychology*, 5, 125-132. <https://doi.org/10.1080/09764224.2014.11885512>
- Akhtar, Z. (2012). Socio-economic status factors effecting the students' achievement: A predictive study. *International Journal of Social Sciences and Education*, 2(1), 281-287.
- Anumudu, C. E., Adzharuddin, N. A., & Yasin, M. A. I. (2018). Smartphone usage motives and educational performances among undergraduates in university Putra Malaysia. *International Journal of Social Science and Humanities Research*, 6(1), 291-302.
- Aremu, A. O. (2004). Psychological and sociological determinant of educational achievement of Nigeria adolescents. *An International Journal of Psychology in Africa*, 12(2), 149-161.
- Asghar, Z., Attique, N., & Urooj, A. (2009). Measuring impact of education and socioeconomic factors on health for Pakistan. *The Pakistan Development Review*, 48(4), 653-674.
- Atibuni, D. Z., Ssenyonga, J., Olema, D. K., & Kemeza, I. (2017). Locus of control as a predictor of educational attitudes among university students. *International Journal of Educational Policy Research and Review*, 4, 125-137. <https://doi.org/10.15739/IJEPRR.17.014>
- Azam, M., & Kingdon, G. (2015). *Assessing teacher quality in India*. Oklahoma State University and IZA, Mimeo. Bonn, Germany: Forschungsinstitut zur Zukunft der Arbeit Institute for the Study of Labor. <https://doi.org/10.2139/ssrn.2512933>
- Baek, S. G., & Choi, H. J. (2002). The relationship between students' perceptions of classroom environment and their educational achievement in Korea. *Asia Pacific Education Review*, 3, 125-135. <https://doi.org/10.1007/BF03024926>
- Bau, N., & Das, J. (2017). *The misallocation of pay and productivity in the public sector: Evidence from the labor market for teachers*. World Bank.
- Benbenishty, R., & Astor, R. A. (2005). *School violence in context: Culture, neighborhood, family, school, and gender*. Oxford University Press.
- Berkowitz, R., Moore, H., Astor, R. A., & Benbenishty, R. (2017). A research synthesis of the associations between socioeconomic background, inequality, school climate, and educational achievement. *Review of Educational Research*, 87, 425-469. <https://doi.org/10.3102/0034654316669821>
- Berman, P., McLaughlin, M. W., Bass, G., Pauly, E., & Zellman, G. (1977). *Federal programs supporting educational change. Vol. VII: Factors affecting implementation and continuation*. The Hand Corporation.
- Beskow, L. M., Botkin, J. R., Daly, M., Juengst, E. T., Lehmann, L. S., Merz, J. F., Pentz, R., Press, N. A., Ross, L. F., Sugarman, J., Susswein, L. R., Terry, S. T., Austin, M. A., & Burke, W. (2004). Ethical issues in identifying and recruiting participants for familial genetic research. *American Journal of Medical Genetics Part A*, 130, 424-431. <https://doi.org/10.1002/ajmg.a.30234>
- Bhutta, Z. A. (2004). Beyond informed consent. *Bulletin of the World Health Organization*, 82(10), 771-777.
- Boštic, M. N. (2010). *Locus of control and educational achievement among first generation and second-generation college students*, Published doctoral dissertation, Tennessee Technological University, USA.
- Bourdieu, P. (1990). *The logic of practice*. Polity.
- Bradley, S., & Taylor, J. (2007). *Diversity, choice and the quasi-market: An empirical analysis of secondary education policy in England*. Lancaster University Management School Working Paper, 038.
- Brand, S., Felner, R., Shim, M., Seitsinger, A., & Dumas, T. (2003). Middle school improvement and reform: Development and validation of a school-level assessment of climate, cultural pluralism, and school safety. *Journal of Educational Psychology*, 95, 570-588. <https://doi.org/10.1037/0022-0663.95.3.570>
- Brasington, D. M., & Hite, D. (2012). School choice and perceived school quality. *Economic Letters*. <https://doi.org/10.1016/j.econlet.2012.04.022>
- Buckley, J. & Schneider, M. (2007). *Charter Schools: Hope or Hype?* Princeton University Press.
- Bulus, M. (2011). Goal orientations, locus of control and educational achievement in prospective teachers: An individual differences perspective. *Educational Sciences: Theory and Practice*, 11(2), 540-546.

- Bull, S., & Lindegger, G. C. (2011). Ensuring consent to research is voluntary: How far do we need to go? *The American Journal of Bioethics*, 11(8), 27-29.
- Bussell, H. (1998). Parental choice of primary school: An application of Q-methodology. *The Service Industries Journal*, 18(3), 135-147.
- Casella, G., & Berger, R. I. (2002). *Statistical inference*, (second ed.). Duxbury Advance Series.
- Cassidy, S., & Eachus, P. (2000). Learning style, educational belief systems, self-report student proficiency and educational achievement in higher education. *Educational Psychology*, 20(3), 307-322.
- Cook, L., & Bastick, T. (2003). Improving teaching quality: An examination of two locus of control instruments for monitoring internality training. *Journal of Education and Development in the Caribbean*, 7(2), 43-57.
- Cook, L. D. (2012). Teacher locus of control: Identifying differences in classroom practices. *International Journal of Multiple Research Approaches*, 6, 285-296. <https://doi.org/10.5172/mra.2012.6.3.285>
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative and mixed methods approaches* (second ed.). Sage.
- Damar, D. N., Davwet, H. M., & Barnabas, N. (2016). Differential effects of two teaching methods on students' achievement in Geography curriculum in Plateau State, Nigeria. *Asia Pacific Journal of Education, Arts and Sciences*, 3(1), 116-120.
- Decety, J., & Jackson, P. L. (2006). A social-neuroscience perspective on empathy. *Current Directions in Psychological Science*, 15, 54-58. <https://doi.org/10.1111/j.0963-7214.2006.00406.x>
- DeCoŝta, A., D'souza, N., Krishnan, S., Chhabra, M. S., Shihaam, I., & Goswami, K. (2004). Community based trials and informed consent in rural north India. *Journal of Medical Ethics*, 30(3), 318-323.
- Deniz, M., Traŝ, Z., & Aydoĝan, D. (2009). An investigation of educational procrastination, locus of control, and emotional intelligence. *Educational Sciences: Theory & Practice*, 9(2), 623-632.
- De Talanc , M. (2017). Better teachers, better results? Evidence from rural Pakistan. *The Journal of Development Studies*, 53, 1697-1713. <https://doi.org/10.1080/00220388.2016.1265944>
- Din y rek, S., G neyleli, A., &  aĝlar, M. (2012). The relation between assertiveness levels, locus of control and educational success of Turkish language teacher candidates. *Sociology Mind*, 2, 61-66. <https://doi.org/10.4236/sm.2012.21008>
- District Census Report of Kasur. (2000). *Census publication*. Islamabad: Population Census Organization, Statistics Division, Government of Pakistan: Islamabad.
- D nmez, A. (1983). Locus of control and perimeter. *Ankara University Educational Science Journal*, 16(1), 37-47.
- Driscoll, P., Lecky, F., & Crosby, M. (2000). An introduction to everyday statistics. *Emergency Medicine Journal*, 17(3), 205-211.
- Elliott, A. C., & Woodward, W. A. (2007). *Statistical analysis quick reference guidebook: With SPSS examples*. Sage.
- Field, A. (2009). *Discovering statistics using SPSS* (Third ed.). Sage.
- Flouri, E. (2006). Parental interest in children's education, children's self-esteem and locus of control, and later educational attainment: Twenty-six year follow-up of the 1970 British birth cohort. *British Journal of Educational Psychology*, 76, 41-55. <https://doi.org/10.1348/000709905X52508>
- Fraenkel, J. R., Wallen, N. E., & Hayun, H. H. (2012). *How to design and evaluate research in education* (Eighth ed.). McGraw-Hills.
- Gall, M. D., Borg, W. R., & Gall, J. P. (2003). *Educational research: An introduction* (Eighth ed.). Pearson.
- Gay, L. R., Mills, G. E., & Airasian, P. W. (2014). *Educational research: Competencies for analysis and applications* (Tenth ed.). Pearson.
- Ghasemi, A., & Zahediasl, S. (2012). Normality tests for statistical analysis: A guide for non-statisticians. *International Journal of Endocrinology and Metabolism*, 10(2), 486-489.
- Ghazi, S. R., Nawaz, K., Shahzad, S., Shahzada, G., & Rukhsar, M. (2013). Relationship between parents' socio-economic status and their children academic performance. *International Review of Social Sciences and Humanities*, 5(2), 58-65.
- Golparvar, S. E. (2014). A comparison of locus of control and general English achievement in students of medicine and theology. *Khazar Journal of Humanities & Social Sciences*, 17(2), 50-65.
- Greenwood, G. E., Olejnik, S., & Parkay, F. W. (1990). Relationships between four teacher efficacy belief patterns and selected teacher characteristics. *Journal of Research & Development in Education*, 23(2), 102-106.



- Hanushek, E. A. (2011). The economic value of higher teacher quality. *Economics of Education Review*, 30(3), 466-479.
- Hasan, S. S., & Khalid, K. (2014). Educational locus of control of high and low achieving students. *Journal of Research and Reflections in Education*, 8(1), 22 -33.
- Hastings, J. S., Weinstein, J. M. (2008). Information, school choice, and educational achievement: Evidence from two experiments. *Quarterly Journal of Economics*, 123, 1373-1414.
- Hastings, J. S., van Weelden, R., & Weinstein, J. M. (2007). *Preferences, information, and parental choice behavior in public school choice*, Working Paper, National Bureau of Economic Research, Massachusetts Avenue, MA; Cambridge.
- Ho, A. D., & Yu, C. C. (2015). Descriptive statistics for modern test score distributions: Skewness, kurtosis, discreteness, and ceiling effects. *Educational and Psychological Measurement*, 75(3), 365-388.
- Hoxby, C. M., & Murarka, S. (2009). *Charter schools in New York City: Who enrolls and how they affect their students' achievement*, National Bureau of Economic Research Working Paper 14852. <http://www.nber.org/papers/w14852.pdf>
- Hou, N., Doerr, A., Johnson, B., & Chen, P. (2017). 'Locus of control.' In (Ed.). *The handbook of stress and health: A guide to research and practice* (pp. 283-298). John Wiley & Sons.
- Javaid, M., Akhtar, A. S., & Abbas, N. (2012). Exploring the impact of parents' status on the academic performance and behavior of students, *Secondary Education Journal*, 1(1), 55-65.
- Javed, Z. H., Khilji, B. A., & Mujahid, M. (2008). Impact of education on socio-economic status of villagers' life: A case study of Shrien Wala village of Faisalabad District. *Pakistan Economic and Social Review*, 46(2), 133-146.
- Jegede, A. S. (2009). Understanding informed consent for participation in international health research. *Developing World Bioethics*, 9(2), 81-87.
- Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, 1(2), 112-133.
- Kass, N. E., Maman, S., & Atkinson, J. (2005). Motivations, understanding, and voluntariness in international randomized trials. *IRB: Ethics and Human Research*, 27(6), 1-8.
- Kirkpatrick, M. A., Stant, K., Downes, S., & Gaither, L. (2008). Perceived locus of control and educational performance: Broadening the construct's applicability. *Journal of College Student Development*, 49, 486-496. <https://doi.org/10.1353/csd.0.0032>
- Khan, M. H., Zerby, J. A. (1981). The socioeconomic position of Pakistan in the third world. *Pakistan Development Review*, 20(3), 347-65.
- Knoblich, G., & Sebanz, N. (2006). The social nature of perception and action. *Current Directions in Psychological Science*, 15, 99-104. <https://doi.org/10.1111/j.0963-7214.2006.00415.x>
- Leedy, P. D., & Ormrod, J. E. (2005). *Practical research: Planning and design* (Eighth ed.). Prentice Hall.
- Lefcourt, H. M. (1976). Locus of control and the response to aversive events. *Canadian Psychological Review*, 17, 202-209. <https://doi.org/10.1037/h0081839>
- Lee-Kelley, L. (2006). Locus of control and attitudes to working in virtual teams. *International Journal of Project Management*, 24, 234-243. <https://doi.org/10.1016/j.ijproman.2006.01.003>
- Li, S., Xu, Q., & Xia, R. (2020). Relationship between SES and academic achievement of junior high school students in China: The mediating effect of self-concept. *Frontiers in Psychology*, 10, 1-7. <https://doi.org/10.3389/fpsyg.2019.02513>
- Littunen, H., & Storhammar, E. (2000). The indicators of locus of control in the small business context. *Journal of Enterprise Culture*, 8, 343-360. <https://doi.org/10.1142/S0218495800000188>
- Liu, J., Peng, P., & Luo, L. (2019). The relation between family socioeconomic status and academic achievement in China: A meta-analysis. *Educational Psychology Review*, 32, 49-76. <https://doi.org/10.1007/s10648-019-09494-0>
- Malik, A. H. (2012). A comparative study of elite-English-medium schools, public schools, and Islamic Madaris in contemporary Pakistan: The use of Pierre Bourdieu's theory to understand "inequalities in educational and Occupational opportunities". Doctoral dissertation, department of sociology and equity studies in education, University of Toronto, Canada.
- Mathur, R. (2014). Educational achievement of college students and their locus of control. *The International Journal of Indian Psychology*, 1(3), 78-83.

- Mearns, J. (2009). Social learning theory. In H. Reis & S. Sprecher (Eds.), *Encyclopedia of human relationships* (vol. 3) (pp. 1537-1540). Sage. <https://doi.org/10.4135/9781412958479.n506>
- Melekeowei, D. P. (2015). Teachers' locus of control and work experience as determinants of teachers' effectiveness in secondary schools in Lagos state, Nigeria. *Journal of Qualitative Education*, 11(1), 1-8.
- Middleton, M. J., & Midgley, C. (1997). Avoiding the demonstration of lack of ability: An underexplored aspect of goal theory. *Journal of Educational Psychology*, 89, 710-718. <https://doi.org/10.1037/0022-0663.89.4.710>
- Mischel, W., & Shoda, Y. (1995). A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invariance in personality structure. *Psychological Review*, 102, 246-268. <https://doi.org/10.1037/0033-295X.102.2.246>
- National Center for Education Statistics. (2013). *NAEP Data Explorer*. <http://nces.ed.gov/nationsreportcard/naepdata/>
- Nongtdu, S., & Bhutia, Y. (2017, November). *Locus of control in relation to educational achievement of college students in Meghalaya*. Paper presented fourth International Conference on Multidisciplinary Research & Practice, Ahmedabad, Gujarat, India.
- Pakistan District Education Rankings. (2016). *Alif Ailaan and Sustainable Development Policy Institute SDPI. 2016*. Alif Ailaan Pakistan District Education Rankings 2016. Islamabad: Alif Ailaan.
- Pallant, J. (2016). *SPSS survival manual: A step by step guide to data analysis using SPSS program* (Sixth ed.). McGraw-Hill Education.
- Peat, J., & Barton, B. (2008). *Medical statistics: A guide to data analysis and critical appraisal*. John Wiley & Sons.
- Polit, D. F., Beck, C.T., & Hungler, B. P. (2001). *Essentials of nursing research: Methods, appraisal and utilization* (Fifth ed.). Lippincott Williams & Wilkins.
- Rahman, T. (2004). *Denizens of alien worlds: A survey of the education system of Pakistan*. Routledge, Taylor & Francis Group.
- Rose, J. S., & Medway, F. J. (1981). Measurement of teachers' beliefs in their control over student outcome. *The Journal of Educational Research*, 74, 185-190 <https://doi.org/10.1080/00220671.1981.10885308>
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, 80, 1-28. <https://doi.org/10.1037/h0092976>
- Rotter, J. B. (1992). Some comments on the "cognates of personal control." *Applied & Preventive Psychology*, 1, 127-129. [https://doi.org/10.1016/S0962-1849\(05\)80154-4](https://doi.org/10.1016/S0962-1849(05)80154-4)
- Rotter, J. B., Lah, M. I., & Rafferty, J. E. (1992). *Rotter incomplete sentences blank second edition manual*. Psychological Corporation
- Sadowski, C. J., Blackwell, M. W., & Willard, J. L. (1986). Locus of control and student teacher performance. *Education*, 105(4), 391-393.
- Saifi, S. & Mehmood, T. (2011). Effects of socio-economic status on students' achievement. *International Journal of Social Sciences and Education*, 1(2), 119-128.
- Schagen, I., & Hutchison, D. (2003). Adding value in educational research: The marriage of data and analytical power. *British Educational Research Journal*, 29, 749-765. <https://doi.org/10.1080/0141192032000133659>
- Senler, B. (2016). Pre-service science teachers' self-efficacy: The role of attitude, anxiety and locus of control. *Australian Journal of Education*, 60(1), 26-41.
- Singh, A. S., & Masuku, M. B. (2014). Normality and data transformation for applied statistical Analysis. *International Journal of Economics, Commerce and Management*, 2(7), 1-11.
- Sirin, S. R. (2005). Socioeconomic status and educational achievement: A meta-analytic review of research. *Review of Educational Research*, 75, 417-453. <https://doi.org/10.3102/00346543075003417>
- Shepherd, S., Fitch, T., Owen, D., & Marshall, J. (2006). Locus of control and educational achievement in high school students. *Psychological Reports*, 98, 318-322. <https://doi.org/10.2466/pr0.98.2.318-322>
- Suleman, Q., Aslam, H. D., Hussain, I., Shakir, M., & Zaib-Ul-Nisa. (2012). Effects of parental socioeconomic status on the academic achievement of secondary school students in district Karak (Pakistan). *International Journal of Human Resource Studies*, 2(4), 14-32.

Mehboob UL HASSAN, Rafaqat Ali AKBAR. Locus of control: Teachers' neglected attribute towards students' achievement scores in facing diverse socioeconomic status

- Tashakkori, A., & Teddlie, C. (2003). Issues and dilemmas in teaching research methods courses in social and behavioral sciences: US perspective. *International Journal of Social Research Methodology*, 6(1), 61-77.
- Toussi, M. T. M., & Ghanizadeh, A. (2012). A research of EFL teachers' locus of control and self-regulation and the moderating role of self-efficacy. *Theory and Practice in Language Studies*, 2(11), 2363-2371.
- Umer, S., & Siddiqui, J. A. (2013). Improving trends of teaching methods used in the concept schools of Karachi: An evaluative research. *Educational Research International*, 2(2), 146-154.
- Wang, L. Y., Kick, E., Fraser, J., & Burns, T. J. (1999). Status attainment in America: The roles of locus of control and self-esteem in educational and occupational outcomes. *Sociological Spectrum*, 19(3), 281-298.
- Wang, M. T., & Holcombe, R. (2010). Adolescents' perceptions of school environment, engagement, and educational achievement in middle school. *American Educational Research Journal*, 47, 633-662. <https://doi.org/10.3102/0002831209361209>
- Williams, D. M. (2010). Outcome expectancy and self-efficacy: Theoretical implications of an unresolved contradiction. *Personality and Social Psychology Review*, 14, 417-425. <https://doi.org/10.1177/1088868310368802>
- Zimmerman, B. J. (2008). Investigating self-regulation and motivation: Historical background, methodological developments, and future prospects. *American Educational Research Journal*, 45, 166-183. <https://doi.org/10.3102/0002831207312909>
- Zimmerman, B. J., & Cleary, T. J. (2009). Motives to self-regulate learning: A social cognitive account. In K. R. Wentzel & A. Wigfield (Eds.), *Handbook of motivation at school* (pp. 247-264). Routledge.

Received: September 28, 2019

Accepted: March 05, 2020

Cite as: Ul Hassan, M., & Akbar, R. A. (2020). Locus of control: Teachers' neglected attribute towards students' achievement scores in facing diverse socioeconomic status. *Problems of Education in the 21<sup>st</sup> Century*, 78(2), 282-300. <https://doi.org/10.33225/pec/20.78.282>

**Mehboob Ul Hassan**  
(Corresponding author)

PhD, Scholar, Institute of Education and Research, University of the Punjab, Lahore, Pakistan.  
E-mail: hassanbhattig@hotmail.com

**Rafaqat Ali Akbar**

PhD, Professor, University of the Punjab, Lahore, Pakistan.  
E-mail: rafaqat.ier@pu.edu.pk