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Locus of control as correlate of self-regulation among college students

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Abstract

Locus of Control (LOC) is a personality trait which describes the degree to which individuals have control over what happens in their lives. It is a continuum with strong internal inclination at one end and strong external at another end. The LOC is a strong predictor of various personality traits and one of them is self-regulation. 'Self-regulation' refers to monitoring the plans in a way that leads to desirable outcomes. The present study was undertaken to explore the impact of locus of control on self-regulation among college students. Undergraduate students (n=400) studying in four constituent colleges of Punjab Agricultural University, Ludhiana, Punjab equally distributed over two genders (males=200 & females=200) comprised the sample for the study. A Self-structured Locus of Control Questionnaire and Self-Regulation Questionnaire by Brown *et al* (1999) were used to assess the locus of control and self-regulation of the respondents. Results of the study indicated that the major proportion of respondents were inclined towards internal locus of control and majority of the respondents had low level of self-regulation. Further, a significant positive contribution of internal locus of control was observed on self-regulation of the respondents.

Keywords: Locus of control, self-regulation, internal locus of control, external locus of control

1. Introduction

Locus of Control (LOC) is individuals' belief towards the control over the outcomes of events in their lives. LOC is of two types: individuals taking into consideration that they are capable to direct their life events are identified as 'Internals' or individuals with internal locus of control whereas individuals who view their life events are far from their power are identified as 'Externals' or individuals with external locus of control. This tendency distinguishes an individual's perception about self-dependency and control by others (Corsini 1999) [5]. Locus of control with self-efficacy, self-esteem and neuroticism is one of the four core dimension of self-evaluation which include self-assessment (Judge *et al* 1997) [8].

Researches indicate that people having internal locus of control are contented with the consequences of their actions and they have no regrets of the failures. They believe in themselves that hard work and future opportunities will make up every failure (Carlson 2007) [4]. Thus, they are more positive towards life. They are more apt to take responsibility for their actions; opinions of others do not influence them and their outlook towards life is self-centered. They work better when they are on their own pace. Similarly, there are individuals with external locus of control who feel satisfied about their life as they left everything on significant others for setbacks and blame them and are less worried about the consequences of the particular actions. If there was a situation that individual cannot control directly, externals believe in "let go" of the situation and "give it up to fate" (Gilbert 2012) [6].

A variant that has been found to have a close correlation with LOC is self-regulation. 'Self-regulation is understood as a self-directive tool through which students' transform their intellectual capacities into functional abilities such as vocal capacity into an educational accomplishment expertise (Zimmerman 2001) [12]. This includes means or course of action that learners use to control along with organizing their thoughts and converting them into skills required for learning. It is the method of constantly monitoring growth towards an aim, examining outcomes and redirecting unproductive efforts (Berk 2003) [2]. Arkavazi and Nosratinia (2018) [1] conducted a research to see the association between LOC and self-regulation. The sample was 222 male and female students and the samples were selected by the convenience sampling technique. Both parametric and non-parametric research statistical tests were employed to compute the data. The result of the study indicated that a statistically significant positive correlation existed between self-regulation and locus of control of the

respondents. Also, Limunga (2019) ^[10] reviewed various studies and found that locus of control is very important in several aspects of life such as self-regulation and academic achievement. The education institute cannot be blame alone for the results of the students. The outcomes of the event are influenced by how one perceives the learning outcome. The individual with internal locus of control can perform better as he/she believe in working hard and putting efforts. The self-regulated individuals achieve more and get success. The individuals with internal locus of control are more self-regulated. Thus, keeping in view the aforementioned research findings, an empirical research study was aimed to highlight statistical associations between locus of control and self-regulation among college students.

2. Objectives

The specific objectives of the study were:

- a. To assess locus of control and self-regulation among college students
- b. To explore the relationship between locus of control and self-regulation among college students.

3. Materials and Methods

3.1 Sample selection: The study was conducted in constituent colleges [viz. College of Agriculture (COA), College of Basic Sciences and Humanities (COBS&H), College of Agricultural Engineering and Technology (COAE&T) and College of Community Science (COCS)] of Punjab Agricultural University, Ludhiana, Punjab. The sample for the study comprised undergraduate students studying in various programmes offered in the four constituent colleges of the university. Proportionate sampling technique was employed to select a sample of 400 students equally distributed over two genders (Males=200 & females=200).

3.2 Research instruments

- a. **Self-Structured locus of control questionnaire:** A comprehensive self-structured locus of control questionnaire was adapted from Rotter's Locus of Control Scale (1966) and Levenson's Multidimensional Locus of Control Scale adapted by Vohra (1992) for assessing the locus of control among selected respondents. The questionnaire describes the person's belief about how much control they have over the outcomes of events that affect their lives.
- b. **Self-regulation questionnaire (SRQ)** developed by Brown *et al* (1999) ^[3] was used as an attempt to assess the self-regulatory processes through self-report. This test assessed the ability to plan, develop, execute and flexibly maintain intended behaviour in order to achieve one's desired goals in personal as well as in professional settings.

3.3 Statistical analysis of data: Frequencies, percentages, Z-test and Pearson's correlation coefficient were used to compute the data.

4. Results and Discussion

4.1 Assessment of locus of control (LOC) among college students

The data put forth in Table 1 depicts the distribution of

students across varying levels and types of locus of control across the four constituent colleges. The overview of data revealed that statistically significant differences existed between the types of locus of control only in College of Agricultural Engineering and Technology at high as well as low level ($Z=9.37$; $p<0.01$ & $Z=8.25$; $p<0.01$, respectively) where respondents were more inclined towards internal locus of control. However, statistically non-significant differences were observed in rest of the three colleges between the types of locus of control. The in-depth analysis of the data further elucidated that in College of Agriculture 44 per cent of the respondents had low level of internal locus of control and an almost similar trend was seen in external locus of control where also a substantial number (38.40%) of the respondents had low level of external locus of control. This leads to the presumption that the students were concentrated either in high or medium level of either of the locus of control. This signifies that majority of respondents had either high or intermediate locus of control which is suggestive that students could possibly have balance between both internal and external convictions, perhaps with the varying circumstances. Similarly, in College of Basic Sciences and Humanities a major proportion of the respondents (45.71%) had high level of internal locus of control as well as a substantial number of respondents had high level of external locus of control (40.00%). A similar trend was seen in the College of Community Science where the majority of the respondents reported a medium level of internal locus of control as well as medium level of external locus of control (96.15%, each). Thus, results suggested no clear cut locus of control of respondents from College of Basic Sciences and Humanities as well as College of Community Science which is indicative that the belief system of the respondents swings between their personal efforts/ hard work and external factors like luck/fate. These findings are in tune with a study conducted by Jacobs-Lawson *et al* (2001) ^[7] who also reported that the respondents had bi-focal locus of control which means their locus of control swung between internal and external locus of control. However, in College of Agricultural Engineering and Technology the data suggested that more than half of the respondents (52.08%) had high level of internal locus of control and almost an equal number (50.00 %) had low level of external locus of control which indicates that respondents were more inclined towards internal locus of control. These findings suggest that half of the respondents believed that they had an ability to change things through their own efforts and their future is in their own hands. The overview of the overall data irrespective of the colleges depicted statistically significant differences at high as well as low level of LOC ($Z= 9.89$; $p<0.01$ & $Z=8.05$; $p<0.01$, respectively) where the major proportion of the respondents reported high level of internal locus of control (40.75%) as well as low level of external locus of control (52.75%). However, the respondents at medium level across both types of LOC were at par (internal LOC=34.25% & external LOC= 37.00%, respectively). To sum up, the results indicated the propensity for the internal locus of control among respondents. This implies that a major proportion of the respondents were likely to be focused, self-motivated, goal oriented and believing in their own efforts.

Table 1: College-wise per cent distribution of students across varying levels and types of locus of control

Constituent Colleges	Levels of LOC	Types of Locus of Control (n=400)		
		Internal f (%)	External f (%)	Z-value
College of Agriculture (n ₁ =125)	High	39 (31.20)	37 (29.60)	0.27
	Medium	31 (24.80)	40 (32.00)	1.26
	Low	55 (44.00)	48 (38.40)	0.89
College of Basic Sciences and Humanities (n ₂ =105)	High	48 (45.71)	42 (40.00)	0.83
	Medium	21 (20.00)	15 (14.29)	1.09
	Low	36 (34.29)	48 (45.71)	1.68
College of Agricultural Engineering and Technology (n ₃ =144)	High	75 (52.08)	4 (2.78)	9.37**
	Medium	60 (41.67)	68 (47.22)	0.94
	Low	9 (6.25)	72 (50.00)	8.25**
College of Community Science (n ₄ =26)	High	1 (3.85)	0 (0.00)	1.01
	Medium	25 (96.15)	25 (96.15)	0.00
	Low	0 (0.00)	1 (3.85)	1.01
Overall sample (n=400)	High	163 (40.75)	41 (10.25)	9.89**
	Medium	137 (34.25)	148 (37.00)	0.81
	Low	100 (25.00)	211 (52.75)	8.05**

Figures in parentheses indicate percentages

**p<0.01

4.2 Assessment of self-regulation among college students

The data presented in the Table 2 illustrates the college-wise per cent distribution of students across varying dimensions as well as levels of self-regulation. The critical analysis of the data is summarized under the following sub-heads:

'Receiving' as a dimension of self-regulation

The data presented regarding 'receiving' dimension of self-regulation revealed that in College of Agriculture, the majority of the respondents (78.40%) were at medium level of receiving followed by high (19.20%) and low (2.40%) level of receiving. A similar trend was noticed for respondents from College of Basic Sciences and Humanities where also the data depicted that a major proportion of the respondents (63.81%) were at medium level followed by high (28.57%) and low (7.62%) level of receiving dimension of self-regulation. Further, in College of Agricultural Engineering and Technology, data depicted that almost all the respondents (96.53%) were at medium level except for just 3.47 per cent who had low level of receiving. Similarly, in College of Community Science the majority of the respondents (92.31%) were at medium level and an equal number of respondents at low as well as high (3.85%, each) level of receiving dimension of self-regulation.

Irrespective of colleges the overall picture suggested that the majority (82%) of the respondents were at medium level of 'receiving' followed by high (13.75%) and rest 4.25 per cent at low level of receiving. So, it can be concluded that majority of the respondents were at medium level of 'receiving' dimension of self-regulation, which implies that the respondents had an average self-regulatory approach in tracking their progress towards goals, noticing the impact of the actions taken, learning from their past mistakes, performing tasks attentively and maintaining a healthy life style. Respondents were found to be moderately apt in tapping the relevant information to achieve goals faster.

'Evaluating' as a dimension of self-regulation

The data further examined the distribution of respondents as per 'evaluating' dimension of self-regulation and the data ascertained that in College of Agriculture, a major proportion of respondents (72.00%) had medium level of 'evaluating' followed by high (24.00%) and low (4.00%) level of

evaluating. Similar trend was observed in College of Basic Sciences and Humanities, where 62.86 per cent of the respondents had medium level of evaluating, 32.38 per cent had high and only 4.76 per cent had low level of evaluating. In College of Agricultural Engineering and Technology, majority of the respondents (87.50%) were at medium level followed by low (9.72%) and high (2.78%) level of evaluating dimension of self-regulation.

Further, moving towards College of Community Science, data divulged that almost all of the respondents had medium (92.3%) level except for 7.69 per cent who had low level of evaluating dimension of self-regulation.

The comparative analysis of the evaluating dimension across four colleges reveals that respondents from College of Basic Sciences and Humanities as well as College of Agriculture had reasonably higher scores (32.38% & 24.00%, respectively) at high level of this dimension. The results indicate that almost one-fourth of the respondents from both the colleges were cognizant about the norms, standards and guidelines to be used in order to evaluate the relevant information whereas in contrast, respondents from College of Agricultural Engineering and Technology had negligible (2.78%) and College of Community Science had none of the respondents at high level.

However, overall data irrespective of colleges revealed that a major proportion of the respondents (76.50%) were at medium level of 'evaluating' followed by high (17%) and low (6.50%) level of evaluating dimension of self-regulation. Hence, it can be concluded that majority of the respondents were at medium level in evaluating dimension of self-regulation. This implies that the respondents had an average ability to maintain individuality, identifying their goals and monitoring their progression towards their goals and moderately compatible with their friends.

'Triggering' as a dimension of self-regulation

Further probe into the data concerning the 'triggering' dimension of self-regulation revealed that in College of Agriculture, a major proportion of the respondents (72.00%) were at medium level of this dimension of self-regulation followed by almost one-fourth (24.80%) at high and only 3.20 per cent at low level of triggering. Similarly, in the College of Basic Sciences and Humanities, a major proportion of the

respondents (66.67%) had medium level followed by high (27.62%) and low (5.71%) level of triggering dimension of self-regulation. Whereas, in College of Agricultural Engineering and Technology the majority of the respondents (90.28%) were at medium level of triggering dimension followed by high (5.56%) and low (4.17%) level of triggering. A similar trend was noticed in College of Community Science where the majority of the respondents (92.31%) had medium and remaining 7.69 per cent had low level of 'triggering' dimension of self-regulation. Furthermore, the data depicts that almost one-fourth of the respondents from College of Basic Sciences and Humanities as well as College of Agriculture had reasonably better scores (27.62% & 24.80%, respectively) at high level of this dimension.

However, irrespective of colleges the overall data highlighted that a major proportion of the respondents (78.50%) were clustered at medium level of triggering followed by 17 per cent at high and just 4.50 per cent at low level of triggering. Therefore, it can be clearly noted that the majority of the respondents were at medium level of 'triggering' dimension of self-regulation which implies that the respondents were likely to have an average capacity to adapt easily with the changes and the situations as well and also taking corrective measures promptly in tough times.

'Searching' as a dimension of self-regulation

The data put forth in the table 2 further presents the information relating to the 'searching' dimension of self-regulation. The data depicts that a major proportion of the respondents (74.40%) from College of Agriculture were at medium level of 'searching' dimension followed by 19.20 per cent at high and 6.40 per cent at low level of this dimension. A similar trend was observed for College of Basic Sciences and Humanities where also a major proportion of respondents (66.67%) were at medium level followed by more than one-fourth (27.62%) at high and 5.71 per cent at low level of searching dimension. However, in College of Agricultural Engineering and Technology the vast majority of the respondents (92.36%) had medium level followed by 5.56 per cent at low and a very small proportion at high (2.08%) level of searching. Similarly, almost all of the respondents (96.15%) from College of Community Science also were at medium level of searching and barely 3.85 per cent were at high level of 'searching' dimension of self-regulation.

The overview of the overall data reveals that irrespective of the colleges the majority of the respondents (80.25%) had medium level of 'searching' followed by 14.25 per cent high and 5.50 per cent at low level of searching. Thus, it can be concluded that majority of the respondents being at medium level of 'searching' dimension of self-regulation, were likely to be average in personal traits like resilience, determination, confidence and openness to new information and choices.

'Formulating' as a dimension of self-regulation

The analysis of the data pertaining to the 'formulating' dimension of self-regulation depicted that a major proportion of the respondents (75.20%) from College of Agriculture had a medium level of 'formulating' followed by 21.60 per cent at high and 3.20 per cent at low level of formulating. A similar trend was noticed in College of Basic Sciences and Humanities where 64.76 per cent of the respondents had a medium level of formulating, 26.67 per cent had high and 8.57 per cent had low level of formulating. Majority of the

respondents from College of Agricultural Engineering and Technology as well as College of Community Science also depicted medium level of formulating (90.97 % & 96.15%, respectively) dimension of self-regulation.

Hence, it may be concluded that irrespective of colleges the overall data suggested that the majority of the respondents (79.50%) had a medium level of 'formulating' dimension of self-regulation which signifies that the respondents were moderately apt in setting clear and specific goals and had an average ability to be consistent with their actions.

'Implementing' as a dimension of self-regulation

The further probe into the data regarding 'implementing' dimension of self-regulation revealed that a major proportion of the respondents (76.00%) from College of Agriculture had medium level of 'implementing' followed by 22.40 per cent at high and only 1.60 per cent at low level of implementing dimension of self-regulation. Similarly, in College of Basic Sciences and Humanities a major proportion of the respondents (66.67%) had medium level of 'implementing' followed by more than one-fourth (25.71%) at high and 7.62 per cent at low level of implementing. Majority of the respondents (87.50%) from College of Agricultural Engineering and Technology also had medium level of implementing and an equal number of respondents had a low as well as high (6.25%, each) level of 'implementing'. Whereas, in contrast to the foregoing results all the respondents from College of Community Science (100%) were at medium level of implementing dimension of self-regulation.

However, irrespective of the colleges the overall data revealed that majority of the respondents (79.25%) had medium level of implementing which indicates that majority of the respondents were likely to have an average capability to be firm and focussed in their plans and could easily get distracted by the external circumstances.

'Assessing' as a dimension of self-regulation

Data regarding the 'assessing' dimension of self-regulation explains that in two constituent colleges *viz.* College of Agricultural Engineering & Technology and College of Community Science, the majority of the respondents were at medium level of assessing dimension (89.58% & 96.15%, respectively). However, in College of Agriculture as well as College of Basic Sciences and Humanities a major proportion of the respondents (69.60% & 64.76%, respectively) had medium level of 'assessing' and more than one-fourth of respondents were at high level (25.60% & 27.62%, respectively) of assessing. But in the remaining two colleges there were negligible respondents at this level of assessing dimension. This indicated that more number of respondents from College of Agriculture as well as College of Basic Sciences and Humanities were superior in assessing dimension of self-regulation and thus were likely to be more focused, determined and ready to learn.

Overall data irrespective of colleges explicates that a major proportion of the respondents (77.25%) had medium, only 16.25 per cent had high whereas merely 6.50 per cent were at low level of 'assessing' dimension of self-regulation. Thus, it may be inferred that a major proportion of respondents were average in planning, had average capability to learn from the past mistakes as well as handle failures. Also, they were moderately working towards goal attainment.

‘Overall self-regulation’

The overall data irrespective of the dimensions of self-regulation elucidates that more than half of the respondents from College of Agriculture (55.20%) as well as College of Basic Sciences and Humanities (54.29%) had low level of self-regulation. But the picture was dismal in College of Agricultural Engineering and Technology (98.61%) as well as College of Community Science (100%) where almost all the respondents had low level of self-regulation. Also, the overall data irrespective of the colleges revealed that a major proportion of the respondents (73.50%) had low level of self-

regulation whereas the remaining respondents were almost evenly distributed over high and low level (15.75% & 10.75%, respectively) of self-regulation.

Thus, the results indicated that the majority of the students at low level were quite poor in controlling their behaviours, emotions, and thoughts in the pursuit of long-term goals. More specifically, they possessed lesser ability to monitor and manage their energy states, emotions, thoughts and behaviour in ways that were acceptable and enhanced well-being, loving relationships and learning among individuals.

Table 2: College-wise per cent distribution of students across different dimensions and levels of self-regulation regulation

Dimensions of Self-regulation	Constituent Colleges					
	Levels	COA (n ₁ =125)	COBS&H (n ₂ =105)	COAE&T (n ₃ =144)	COCS (n ₄ =26)	Overall Sample (n=400)
		f(%)	f(%)	f(%)	f(%)	f(%)
Receiving	High	24(19.20)	30(28.57)	0(0.00)	1(3.85)	55(13.75)
	Medium	98(78.40)	67(63.810)	139(96.53)	24(92.31)	328(82.00)
	Low	3(2.40)	8(7.62)	5(3.47)	1(3.85)	17(4.25)
Evaluating	High	30(24.00)	34(32.38)	4(2.78)	0(0.00)	68(17.00)
	Medium	90(72.00)	66(62.86)	126(87.50)	24(92.31)	306(76.50)
	Low	5(4.00)	5(4.76)	14(9.72)	2(7.69)	26(6.50)
Triggering	High	31(24.80)	29(27.62)	8(5.56)	0(0.00)	68(17.00)
	Medium	90(72.00)	70(66.67)	130(90.28)	24(92.31)	314(78.50)
	Low	4(3.20)	6(5.71)	6(4.17)	2(7.69)	18(4.50)
Searching	High	24(19.20)	29(27.62)	3(2.08)	1(3.85)	57(14.25)
	Medium	93(74.40)	70(66.67)	133(92.36)	25(96.15)	321(80.25)
	Low	8(6.40)	6(5.71)	8(5.56)	0(0.00)	22(5.50)
Formulating	High	27(21.60)	28(26.67)	4(2.78)	1(3.85)	60(15.00)
	Medium	94(75.20)	68(64.76)	131(90.97)	25(96.15)	318(79.50)
	Low	4(3.20)	9(8.57)	9(6.25)	0(0.00)	22(5.50)
Implementing	High	28(22.40)	27(25.71)	9(6.25)	0(0.00)	64(16.00)
	Medium	95(76.00)	70(66.67)	126(87.50)	26(100.00)	317(79.25)
	Low	2(1.60)	8(7.62)	9(6.25)	0(0.00)	19(4.75)
Assessing	High	32(25.60)	29(27.62)	4(2.78)	0(0.00)	65(16.25)
	Medium	87(69.60)	68(64.76)	129(89.58)	25(96.15)	309(77.25)
	Low	6(4.80)	8(7.62)	11(7.64)	1(3.85)	26(6.50)
Overall Self-regulation	High	18(14.40)	24(22.86)	1(0.69)	0(0.00)	43(10.75)
	Medium	38(30.40)	24(22.86)	1(0.69)	0(0.00)	63(15.75)
	Low	69(55.20)	57(54.29)	142(98.61)	26(100.00)	294(73.50)

Figures in parentheses indicate percentages

4.3 Relationship between locus of control and self-regulation among college students

Data put forth in the Table 3 projects the correlation between two types of locus of control and varying dimensions of self-regulation of the students across constituent colleges. In College of Agriculture statistically significant positive correlation was observed between internal locus of control and ‘formulating’ dimension of self-regulation among the male respondents ($r= 0.27$; $p<0.05$). This suggest that the male respondents who were internally motivated and believed that outcomes of their action were caused by them were expected to be more stable, consistent, good anticipator and better planner.

However, statistically non-significant correlation was discerned between internal locus of control and remaining six dimensions (viz. receiving, evaluating, triggering, searching, and implementing and assessing) as well as overall self-regulation among the male and female respondents.

Furthermore, in College of Basic Sciences and Humanities a statistically significant negative correlation existed between internal locus of control and ‘assessing’ dimension of self-regulation among the female respondents ($r= - 0.28$; $p<0.05$).

However, for rest of the six dimensions of self-regulation a statistically non-significant correlation with the internal locus of control was observed for both males as well as females. Thus, it may be summarized that internally motivated female respondents were likely to be poor in appreciating themselves, revising their action plans and focusing towards targeted goals.

The further perusal of the data pertaining to College of Agricultural Engineering and Technology indicated statistically significant negative correlation between internal locus of control and ‘triggering’ as well as assessing dimensions among the male respondents ($r= -0.24$; $p<0.05$ & $r= -0.26$; $p<0.05$, respectively). This implies that the male respondents with the ability to control themselves were presumably not so good in dealing with the sudden changes and situations as well as in assessing their goals. Contrary to this finding statistically significant positive correlation was found between internal locus of control and ‘evaluating’ dimension among their female counterparts ($r=0.43$; $p<0.01$). Thus, it may be inferred that female respondents with internal locus of control were likely to have individualism and a friendly attitude towards other. However, a statistically non-

significant correlation existed in the remaining dimensions of self-regulation.

However, data relating to College of Community Science revealed statistically non-significant correlation between internal locus of control and all the seven dimensions of self-regulation of the respondents.

The overview of the data pertaining correlation analysis with regards to external locus of control elucidated that the respondents from College of Agriculture had statistically non-significant correlation between external locus of control and all the dimensions of self-regulation (*viz.* receiving, evaluating, triggering, searching, formulating, implementing, assessing) as well as overall self-regulation. A similar trend was noticed for College of Agricultural Engineering and

Technology as well as for College of Community Science where statistically non-significant correlation was observed between external locus of control and the varying dimensions of self-regulation.

In College of Basic Sciences and Humanities a significant positive correlation was found between external locus of control and ‘evaluating’ dimension of self-regulation among the male respondents ($r=0.39$; $p<0.01$). This indicates that the male respondents who believed in externally motivated forces could possibly believe in living up to the standard norms and guidelines as well. However, a statistically non-significant correlation existed between external locus of control and remaining dimensions of self-regulation of the respondents.

Table 3: Correlation between types of locus of control and varying dimensions of self-regulation of students across the constituent colleges

Dimensions of Self-regulation	Types of Locus of Control (n=400)													
	Internal							External						
	COA (n ₁ =125)		COBS&H (n ₂ =105)		COAE&T (n ₃ =144)		COCS (n ₄ =26)	COA (n ₁ =125)		COBS&H (n ₂ =105)		COAE&T (n ₃ =144)		COCS (n ₄ =26)
	Males (r)	Females (r)	Males (r)	Females (r)	Males (r)	Females (r)	Females (r)	Males (r)	Females (r)	Males (r)	Females (r)	Males (r)	Females (r)	Females (r)
Receiving	-0.03	-0.16	-0.11	-0.14	0.06	-0.12	0.01	0.11	-0.02	0.10	-0.02	0.05	-0.10	0.33
Evaluating	-0.24	-0.20	0.19	-0.15	-0.01	0.43**	-0.22	0.19	0.14	0.39**	0.13	-0.01	-0.20	-0.14
Triggering	-0.01	-0.03	-0.10	-0.09	-0.24*	0.11	0.27	0.16	-0.23	0.04	0.003	-0.03	-0.21	0.08
Searching	0.15	-0.12	0.05	-0.06	-0.03	-0.08	0.14	-0.17	-0.02	-0.04	0.16	0.13	0.007	0.25
Formulating	0.27*	-0.24	-0.02	-0.07	0.09	0.08	0.13	0.09	0.05	-0.15	-0.05	0.09	-0.21	0.04
Implementing	-0.04	-0.23	-0.17	0.04	-0.01	0.07	0.02	0.17	0.04	-0.18	-0.18	0.18	-0.07	0.23
Assessing	-0.01	-0.10	0.02	-0.28*	-0.26*	0.11	-0.04	0.06	0.14	0.15	0.09	0.14	-0.02	-0.22
Overall Self-regulation	0.02	-0.20	-0.03	-0.17	-0.14	0.17	0.11	0.14	0.01	0.02	0.02	0.20	-0.20	0.16

r = correlation coefficient

*p<0.05, **p<0.01

4.4 Contribution of locus of control towards varying dimensions of self-regulation among college students

The data presented in the Table 4 exhibits the contribution of two types of locus of control (independent variable) towards self-regulation (dependent variable) and its varying dimensions. The regression analysis of the data presented reveals a significant positive contribution of internal locus of control on all the seven dimensions of self-regulation i.e. receiving ($t =5.40$; $p<0.01$), evaluating ($t =5.78$; $p<0.01$), triggering ($t =5.28$; $p<0.01$), searching ($t =4.90$; $p<0.01$), formulating ($t =5.43$; $p<0.01$), implementing ($t =5.22$; $p<0.01$), assessing ($t =4.69$; $p<0.01$) of respondents. Also, the significant contribution of internal LOC on overall self-

regulation was observed ($t=6.80$; $p<0.01$). The R^2 indicates that internal locus of control contributed 10.00, 14.00, 10.00, 6.00, 12.00, 10.00, 7.00 and 15.00 per cent, respectively towards the development of receiving, evaluating, triggering, searching, formulating, implementing, assessing as well as overall self-regulation, respectively. The regression coefficient (β) indicated a positive contribution by internal locus of control on all these dimensions as well as overall-self-regulation. Thus, a contributing relationship of internal locus of control towards these dimensions could be established. However, statistically non-significant contribution of external locus of control was observed towards all the dimensions of self-regulation.

Table 4: Regression analysis of types of locus of control on varying dimensions of self-regulation of students

Dimensions of Self-regulation	Types of Locus of Control	Regression Coefficient (β)	Standard Error	Constant(α)	R ²	t-value
Receiving	Internal	0.660	0.012	20.681	0.10**	5.40**
	External	0.047	0.014			0.69
Evaluating	Internal	0.10	0.013	21.186	0.14**	5.785**
	External	0.00	0.015			.032
Triggering	Internal	0.067	0.013	20.735	0.10**	5.280**
	External	0.013	0.015			.896
Searching	Internal	0.062	0.013	20.001	0.06**	4.907**
	External	0.028	0.015			1.852
Formulating	Internal	0.068	0.013	21.168	0.12**	5.437**
	External	0.005	0.015			.336
Implementing	Internal	0.066	0.013	21.182	0.10**	5.227**
	External	0.009	0.015			.634
Assessing	Internal	0.061	0.013	20.756	0.07**	4.696**
	External	0.018	0.015			1.167

Overall self-regulation	Internal	0.463	0.068	145.709	0.15**	6.820**
	External	0.084	0.080			1.048

**p<0.01

5. Conclusion

The overview of the foregoing findings of the study indicates a propensity of respondents towards internal locus of control whereas, majority of the respondents were at medium level across all the dimensions of self-regulation. However, irrespective of dimensions of self-regulation the major proportion of the respondents were at low level of self-regulation. The correlation analysis of the data represented a significant positive correlation between internal locus of control and 'formulating' dimension of self-regulation among the males (COA), internal locus of control and 'evaluating' dimension among the females (COAE&T), external locus of control and 'evaluating' dimension of self-regulation among the males (COBS&H). Furthermore, a statistically significant negative correlation existed between internal locus of control and 'assessing' dimension of self-regulation among the female respondents from COBS&H as well as male respondents from COAE&T.

Thus, the results of this study advocate the promotion of an internal locus of control among students to make them more self-regulated which is often regarded as a positive personality trait and is known to enhance an individuals' potential to achieve the targeted goals. Also, the internal locus of control has been found to have a significant positive contribution towards all the seven dimensions of self-regulation (receiving, evaluating, triggering, searching, formulating, implementing, and assessing) as well as overall self-regulation of the students which indicates the importance of internal locus of control in enhancing self-regulatory approaches among students to achieve more and get success.

6. References

1. Arkavazi S, Nosratinia M. Self-regulation and locus of control predicting EFL learners' willingness to communicate. *Theory and Practice in Language Studies*. 2018; 8(8):094-1103.
2. Berk LE. *Child Development*. Allyn and Bacon, Boston, MA, 2003, 45-49.
3. Brown J, Miller W, Lawendowski L. The Self-Regulation Questionnaire. Professional Resource Press Sarasota, United States. *Journal of Innovations in clinical practice*. 1999; 17(1):281-289.
4. Carlson NR. *Psychology: The Science of Behaviour*. Pearson Education, Toronto, Canada, 2007, 45-57.
5. Corsini JR. *The Dictionary of Psychology*. Taylor & Francis Press, Philadelphia, USA, 1999, 212-219.
6. Gilbert A. Influences versus control. [<https://influenceversuscontrol.wordpress.com/tag/external-LOC/>]. [Visited on 2 July, 2017].
7. Jacobs-Lawson JM, Waddell EL, Webb AK. Predictors of health locus of control in older adults. *Current Psychology*. 2001; 30(2):173-183.
8. Judge TA, Locke EA, Durham CC. The dispositional causes of job satisfaction: A core evaluations approach. *Research in Organizational Behavior*. 1997; 19(2):151-188.
9. Levenson H. Multidimensional locus of control in psychiatric patients. *Journal of Consulting and Clinical Psychology*. 1973; 41(3):397-404.
10. Limunga MLM. The role played by internal locus of

control and self-regulation in learning outcome. *International Journal of Trend in Scientific Research and Development*. 2019; 3(2):865-867.

11. Rotter JB. Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*. 1966; 80(1):609-615.
12. Zimmerman BJ. Theories of self-regulated learning and academic achievement: An overview and analysis. In: Zimmerman B J and Schunk D H (ed) *Self-regulated learning and academic achievement: Theoretical perspectives*. Lawrence Erlbaum Associates, New York, 2001, 1-38.