

Curiosity and Meaning of life leading towards Personal Growth: The role of Emotional Intelligence

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Curiosity is innate character strength of an individual motivating oneself to investigate and learn about the subject matter of interest leading towards the personal and professional satisfaction in life. Meaning in life charts the way of regulating and directing attention to continuously evaluate one's personal values and life goals. Emotional intelligence influences an individual's physical and mental health as well as career aspirations and achievements in changing environmental situations. All these three factors may possibly influence an individual's present and past experiences to forecast one's potential areas for growth and development in the form of personal growth initiative. Therefore, the main purpose of this study is to assess the influence of curiosity and meaning of life on one's personal growth, moderated with emotional intelligence. The empirical study has been carried out with the professional students of a premier technical institution in India. Results have revealed that personal growth initiative is positively associated with curiosity and meaningful life. Findings have indicated that both the constructs are significantly moderated by emotional intelligence for predicting personal growth.

Keywords: Curiosity, Meaningful Life, Personal Growth, Emotional Intelligence.

Our complex society demands varied role requirements in personal and professional sphere. An adolescent requires cognitive and socio-emotional tools and processes not only to maximize one's learning and development outcomes, but also to lead a happy and meaningful life (Duckworth et.al, 2005). In this context, curiosity stands as a fundamental personality trait of human motivation (Izard, 1977), which is primarily governed by the way an individual directs his/her attention towards a novel or a valued stimuli happening in its immediate environment for learning and growth (Peterson & Seligman, 2004). Curiosity basically provides an undivided attention to an activity and when a person gets a feeling of curiosity within and he/she can persist on task until the goal is achieved (Silvia, 2006). Many research findings have assumed that curiosity use to play an integral role in development of intelligence and wisdom (Renninger, Hidi & Krapp, 1992) leading to a meaningful life with an engaging social relationship (Siddique & D'Arcy 1984; Kasdan, 2009). The concept of meaning of life in this study is referred to the fundamental means of understanding, the way an individual

confronts challenges of life, while maximizing his/her unique potential.

The constructs of curiosity and meaningfulness promote an individual's purposive orientation towards engaging in growth seeking process. Therefore, personal growth initiative (PGI) stands as a meta-cognitive process containing the "cognitive elements (like motivation to change, personal efficacy to address the change process) and behavioral components for e.g. roles relating to alignment of personal characteristics for attaining goals" (Robitschek, 2003). In order to promote the capacity of engaging in valued behavior, a professional need to accurately perceive and use his own and other's emotions for achieving personal and professional goals. Therefore, the current study is an effort of the present researchers to understand the linking pin between the constructs of curiosity and meaningful life to personal growth initiative.

Curiosity and meaningful life

Curiosity is a mixture of cognition and intrinsic motivation that is inherent in information processing of an individual (Hunt, 1963). In a

practical sense curiosity is basically an “intense desire to explore novel and challenging events, motivating people to immerse, act and think in new ways” (Kashdan et.al., 2009). By focusing on the novelty and challenge, there will be an inevitable stretching of information, knowledge, and skill set of an individual leading to cognitive growth. Therefore, the dimension of curiosity assumes an individual’s proclivity to stretch one’s capability for growth and development.

In this context, it is presumed that a student learner having a curiosity-driven intention is able to interact and evolve quickly to an open world. In an earlier study, Langevin (1971) has conducted a research in the area of curiosity and has classified his findings into two important categories. “First, curiosity is viewed as a motivational state and measured with behavioral indices. Second, curiosity is a personality trait that is assessed by personality measures”. Therefore, it is inferred that motivation and personality are two important distinctions of curiosity for arousing interest and motivation. For instance, epistemic curiosity defines the desire to obtain the facts and information for intellectual enrichment, whereas perceptual curiosity signifies the distinctive aspiration to acquire experiences through senses (Zuckerman, 1994). The usage of this ability spreads across an individual’s life span and serves as an all-encompassing function for building knowledge, skills, expertise and relationships (Izard, 1977). On the ground of exploratory tendency Berlyne (1971) has proposed curiosity as (a) diversive curiosity – enthusiastically looking for varied sources of novelty and challenge and (b) specific curiosity – looking for in-depth understanding of a particular stimulus or activity. Observing the contextual factors of curiosity, we have understood that curiosity is an incessant desire to seek and embrace knowledge and experiences happening in one’s environment.

At the same time, we have found that the factors leading to curiosity are coinciding with other psychological constructs such as sensation seeking and behavioral activation system (Depue, 1996). It is presumed that any kind of process initiated through curiosity may lead to a meaningful subjective experience, which includes “an increase in attention

allocation to scan and orient oneself towards novel and challenging stimuli, cognitive and behavioral exploration of rewarding stimuli, flow-like engagement with rewarding stimuli or activities, and the integration of novel experiences by assimilation or accommodation” (Kashdan et.al., 2004). Hence, a higher trait curiosity is hypothesized to provide a meaningful life for gratifying challenging life opportunities.

When an individual is able to derive meaning about what is happening around, he may be in a position to appreciate the immediate environment and align it to personal goals and values. Hence, meaning-making is a psychological process of internal exploration that has given personal meaning, values and goals. In a work set-up it has been studied that if “employees’ work activities clash with their personal values, they will not feel curious, in terms of increased intrinsic task motivation” (Thomas & Velthouse, 1990). Irrespective of personal or professional setups meaning making is tied up with one’s personal values, focusing on both the cognitive and behavioral aspects of an individual. Thus, it is expected that making a meaningful life is increasing a sense of willingness to invest effort in one’s task and responsibilities relentlessly, which in-turn leads toward successful work-life performances (Dogra, Basu & Das 2008). Therefore, we outline the meaning of life as an ability to integrate one’s challenging situations into a framework of conscious value-based reflection, depicting satisfaction with self-actualization.

Emotional intelligence, Curiosity and Meaning of life

Philosophers and behavioral scientists have long debated with the question of emotional aspects of human behavior and its relative contribution to supplement a meaningful life. In recent years emotional intelligence (EI) has become an indispensable topic in positive psychology and organizational science. The influence of EI has increased dramatically among academic communities (Emmerling & Goleman 2003) indicating that “intelligence manifested with emotions, composes of a wide array of cognitive and other skills”. Salovey and Mayer (1990) were the first proponents of the concept

of emotional intelligence, defining it as “the ability to monitor one’s own and other’s feelings and emotions to discriminate among them and to use this information to guide one’s thinking, action and life”. On the ground of curiosity and exploration attitude of an individual, emotional intelligence (EI) is defined as the ability to reason about emotion (Mayer et al., 2008). Here in this context, emotions are equated with traits such as achievement motivation, flexibility and self-regard.

EI facilitates a meaningful life, irrespective of work and personal life (Wong & Law, 2002) and includes following four dimensions i.e.: “(1) Appraisal and expression of emotion in the self: states an individual’s ability to understand their deep emotions and be able to express them naturally. (2) Appraisal and recognition of emotion in others: relates to an individual’s ability to perceive and understand the emotions of the people around them. (3) Regulation of emotion in the self: the ability of a person to regulate their emotions, thus enabling a more rapid recovery from emotional climax and distress. (4) Use of emotion to facilitate performance: relates to the ability of a person to make use of their emotions by directing them toward constructive activities and personal performance. Boyatzis and Goleman (2006) have later classified such array of behavioral competencies into two different aspects: “The interpersonal clusters (social awareness and relationship management) as social intelligence (SI) competencies; and the intrapersonal clusters (self-awareness and self-management) as emotional intelligence (EI) competencies. The new term, emotional and social intelligence (ESI) helps to differentiate the behavioral manifestations of the intrapersonal awareness and management of emotions within the self (EI) from the behavioral manifestations of the interpersonal awareness of others’ emotions, needs, thoughts, and perceptions as well as navigate the larger social environment and working with others (SI)”.

The combination of emotional intelligence with that of social intelligence is assumed to promote the curiosity of an individual. Moriarty and Buckley (2003), in their classical findings cited in their book have stated that, “the use of discussion and reflection, rather than instruction, can ensure that new skills and ideas are linked to his/her (experiential) experience and therefore

learning will be more permanent”. By focusing on several components of EI traits such as emotion expression, emotion perception and emotion regulation, the present study aims to examine its moderating role along with curiosity and meaningful life in influencing the trajectory of individual personal growth.

Dynamics of personal growth

A sense of personal growth is the degree to which individuals identify themselves as being actively engaged in the process of environmental change and growth. Prochaska and DiClemente (1984) have coined the process of personal growth as a change happening through individual’s effort and active participation with immediate environment. Incidentally, they were among the first to hypothesize that personal growth embraces development, environmental and intentional process with intentional process being the essential objective. Robitschek (1998) has conceptualized personal growth as a meta-cognitive construct for facilitating oneself through an “intentional engagement in growth-enhancing cognitions and behaviors influencing in all areas of life”. Robitschek (1998) has aided the proposition of Prochaska and DiClemente (1984) stating that intention process is an important ingredient of personal growth as it allows an individual to have an awareness of the changes that are occurring around him/her. Personal growth initiative shares some of the important features to have a meaningful life.

While constructing an exclusive scale on personal growth initiative (PGI) Robitschek (1998) conducted the correlation of PGI against assertiveness, internal and external locus of control and instrumentality. He has found that people who have scored high in PGI tend to have lower level of external locus of control. He has carried out a survey with college students and found that students scored higher than mid-life adults because college life is a time of “conscious growth”. In another study carried out by Robitschek and Cook (1999), personal growth initiative was found to be associated with various types of coping styles and vocational variables. Their hypothesis has proved that there is a positive correlation between “PGI and reflective coping (an intentional coping style), vocational exploration and, vocational identity; and at the same time negative correlations were

found between PGI and a suppressive coping style". With respect to emotional and social intelligence people having high level of PGI have high psychological well-being (Robitschek, 1999) and positive mental health (Robitschek & Keyes, 2009). Therefore, the above mentioned findings have supported the fact that personal growth initiative is a unique construct and is associated with a variety of relevant cognitive constructs. However, we have found that the empirical evidence pertaining to PGI is still in its infancy; and tried to further analyze the construct through empirical work/validation.

Objectives and construction of hypotheses

The review of literature has indicated that there exists a substantial relationship between curiosity and exploration, meaning of life and personal growth initiative. However, there has been a dearth of empirical findings to establish whether emotional intelligence can moderate the relationship (positively or negatively) between curiosity-personal growth initiative and meaning of life-personal growth initiative. Moreover, no exclusive studies have been found till date in any of these above constructs in Indian context and particularly with professional/technical students who are on the verge of getting placements in premier companies. Therefore, the present study has been undertaken to address the above mentioned gap areas. Based on the research gaps in literature the following objectives have been formulated:

1. To examine the inter-relationship among curiosity and exploration, meaning of life and personal growth initiative.
2. To examine the moderating role of emotional intelligence in the context of curiosity-exploration and personal growth initiative as well as meaning of life and personal growth initiative.

Method

Sample:

A total sample of N = 220 was drawn through purposive sampling method from among the B.Tech students of IIT Kharagpur across disciplines from 2nd to 4th year. They have been sensitized with a 3 months course work on "effective learning techniques for professional development". All the assessment measures were individually administered on the subjects

and their responses were analyzed further for getting the inherent pattern of the relationships. The sample respondent consists of 12.7% female students and the whole lot of sample belongs to different domains of engineering disciplines.

Measures:

A set of standardized tools were used for data collection on curiosity and exploration, meaning of life, emotional intelligence and personal growth initiative. All these tools were presented in form of questionnaires to participants for getting their responses.

Curiosity and Exploration Inventory Scale (CEI): The CEI questionnaire by Kashdan et al., (2009) consists of 10 items, five of which measure the curiosity sub-trait "stretching" and rest five measures the sub-trait "embracing". In this study, the participants mean score for the ten items was used as an index of level of curiosity and exploration through Cronbach's $\alpha = .88$.

Meaning in Life Questionnaire – Short Form (MLQ-SF): It was developed by Steger et al. (2006) and consists of 10 items that measures a person's subjective perception that his or her life is meaningful. The scale is claimed to have good psychometric properties of internal consistency, structural validity, and test-retest stability (Steger et al. 2006). The internal consistency coefficients for the MLQ is ranged from .81 to .86, and the test-retest reliability coefficient was .70 (Steger et al., 2006). Cronbach's α for the dimensions of "presence of meaning" and "search of meaning" were .91 and .92, respectively.

Emotional Intelligence Scale: Inclusive of 16 items, the WLEI scale proposed by Wong and Law (2002) has been deployed for analyzing our hypothesis. The 16 items are divided into subscales including four items in each. Earlier research carried out using this scale has found support for the underlying four-factor structure having a good reliability, along with convergent and discriminant validity (Shi & Wang, 2007). The internal consistency is adequate ($r = .78$ to $.89$) with similar consistency for the subscales.

Personal growth initiative scale: The Personal Growth Initiative Scale (PGIS) is a nine

Table 1. Summary of factors, abbreviations, and reliability of the instruments (N = 220)

Constructs	Dimensions	Abbreviations	No. of items	Cronbach's Alpha (α)
Curiosity and Exploration	Stretching	STR	5	.88
Inventory Scale (CEI)	Embracing	EMB	5	.88
Meaning in Life Scale	Presence of meaning	POM	5	.91
(MLS)	Search of meaning	SOM	5	.92
Emotional Intelligence	Self-emotion appraisal	SEA	4	.82
Scale (EIS)	Other's emotion appraisal	OEA	4	.78
	Use of emotions	UOE	4	.86
	Regulations of emotions	ROE	4	.89
Personal Growth Scale	Planfulness	PLN	2	.79
(PGS)	Readiness for change	RFC	2	.84
	Using resources	UR	2	.73
	Intentional behaviour	IB	3	.82

item self-reporting questionnaire (Robitschek, 1998) with sample items including "I take charge of my life" and "I have specific action plans to help me reach my goals." Factor analysis of the scale has revealed four dimensions: planfulness, readiness for change, using resources, and

intentional behavior. Cronbach's α for the scale has ranged from 0.78 to 0.90, with test/retest reliabilities ranging from 0.73 to 0.84.

Procedure for Data collection

The total item wise responses of all the

Table 2. Inter dimension correlations of Curiosity and Exploration, Meaningful Life, Emotional Intelligence and Personal Growth (N=220)

	Mean	SD	STR	EMB	CEI	POM	SOM	MLS	PLN	RFC	UR	IB	PGS	SEA	OEA	UOE	ROE	EI	
STR	3.70	.645	1																
EMB	3.34	.709	.594**	1															
CEI	3.58	.602	.894**	.863**	1														
POM	3.34	.740	.211**	.156*	.209**	1													
SOM	3.20	.566	.052	.184**	.133*	.256**	1												
MLS	3.28	1.08	.186**	.214**	.227**	.841**	.732**	1											
PLN	3.10	1.03	.229**	.224**	.256**	.416**	.083	.343**	1										
RFC	3.32	1.10	.275**	.216**	.297**	.191**	.110	.187**	.596**	1									
UR	3.38	1.04	.198**	.174**	.210**	.407**	.035	.299**	.671**	.654**	1								
IB	3.15	.912	.250**	.218**	.275**	.433**	.209**	.426**	.697**	.619**	.716**	1							
PGS	3.23	1.11	.276**	.240**	.301**	.427**	.135*	.375**	.853**	.813**	.876**	.903**	1						
SEA	3.41	1.08	.208**	.259**	.253**	.300**	.130	.287**	.653**	.555**	.615**	.633**	.715**	1					
OEA	3.39	1.04	.289**	.276**	.313**	.252**	.220**	.303**	.530**	.553**	.569**	.610**	.659**	.587**	1				
UOE	3.52	1.10	.358**	.290**	.379**	.326**	.180**	.330**	.684**	.681**	.673**	.727**	.803**	.602**	.651**	1			
ROE	3.28	.915	.264**	.209**	.269**	.204**	.125	.218**	.547**	.524**	.466**	.582**	.617**	.638**	.563**	.627**	1		
EI	3.40	.878	.331**	.307**	.359**	.321**	.194**	.337**	.716**	.686**	.688**	.757**	.828**	.843**	.831**	.851**	.842**	1	

** $p < 0.01$ level (2-tailed).

* $p < 0.05$ level (2-tailed).

subjects were averaged to yield composite scores of each scale for statistical analysis. A summary of all the scales is presented in Table-1, showing (a) the major constructs used in the study, (b) their factor-analytically derived dimensions with (c) abbreviations, the number of items constituting the factors, and (d) the Cronbach's alpha coefficients indicating the internal consistency of curiosity and exploration inventory scale (CEI), meaning in life questionnaire (MLQ), emotional intelligence scale (EI), personal growth scale (PGS).

Data Analysis and Findings

The descriptive statistics and correlation matrix of the dimensions of curiosity and exploration inventory (CEI), meaning in life scale (MLS), emotional intelligence scale (EIS) and personal growth scales (PGS) are displayed in Table 2. The table of zero order correlation shows that the results are consistent with the objectives of the study. The results have shown that all the factors of CEI, MLS, and EIS were positively correlated with the dimensions of Personal Growth. Table 3 has brought out the results of step wise multiple regression analysis of the dimensions of curiosity and exploration inventory, meaning in life, predicting the dimensions of personal growth. In this table, the regression analysis with its corresponding β values have shown the positive impact of factors associated with curiosity and meaningful life on different factors of personal growth. Fig. 1 has shown the overall strength of association between personal growth as the criterion and curiosity and exploration and meaningful life as the predictor. The Adj. R^2 of .090 between curiosity and exploration inventory and personal growth has satisfied our first hypothesis. The Adj. R^2 value of .141 between meaningful life and personal growth has also agreed with our propositions of second hypothesis. However,

the combined effect of curiosity and exploration along with meaningful life has a significant relationship with personal growth at β value of .558 at Adj. R^2 of .190.

To understand the influence of emotional intelligence among curiosity and exploration inventory, meaningful life and personal growth a moderation analysis was performed using the causal-step approach proposed by Baron and Kenny (1986). In addition to it, bootstrapped confidence interval for the indirect effect was obtained using procedures described by Preacher and Hayes (2008). Preliminary data screening has suggested that there were no serious defilements of assumptions of normality and $\alpha = .01$ two-tailed is the criterion for statistical significance. Fig-2 has represented the effect of CEI and MLS on PGS moderated with EI has found to be highly significant at $c = .792$, $t = 18.98$, $p < .001$. The corresponding β value obtained by multiple regression has shown the value of .792 with Adj. $R^2 = .696$. This proves our third and final hypothesis of the study validating that emotional intelligence is a significant moderator (69.6% influences) between curiosity, exploration and meaningful life with personal growth. The histogram generated while moderating the factors of emotional intelligence has found to be fairly symmetrical suggesting that the residuals are normally distributed with no extreme outliers. The normal probability plot has also shown that it is approximately linear supporting the condition that the error terms are normally distributed.

Discussion and Scope for future research

In this study, we have first examined the relationships among curiosity-exploration inventory (CEI), meaningful life (MLS) and personal growth (PGS) and later both the variables have been moderated with emotional intelligence (EIS). The results were found to be supportive and consistent with our objective that

Table 3. Summary of step wise multiple regression analysis of Curiosity and Exploration, Meaning of Life predicting Personal Growth

Criterion Variable	Personal Growth			
	β	Adj. R2	F	Sign
Predictor Variable				
Curiosity and Exploration	.344	.090	21.657	.000
Meaningful Life	.455	.141	25.410	.000
Curiosity and Exploration, Meaningful Life	.558	.190	35.718	.000

emotional intelligence is significantly moderated with the dimensions of CEI and MLS showing a strong prediction of PGS. Thus, the findings of the study got aligned with past research

demonstrating that individuals with higher personal growth initiative level explore their environment better to derive a definite career

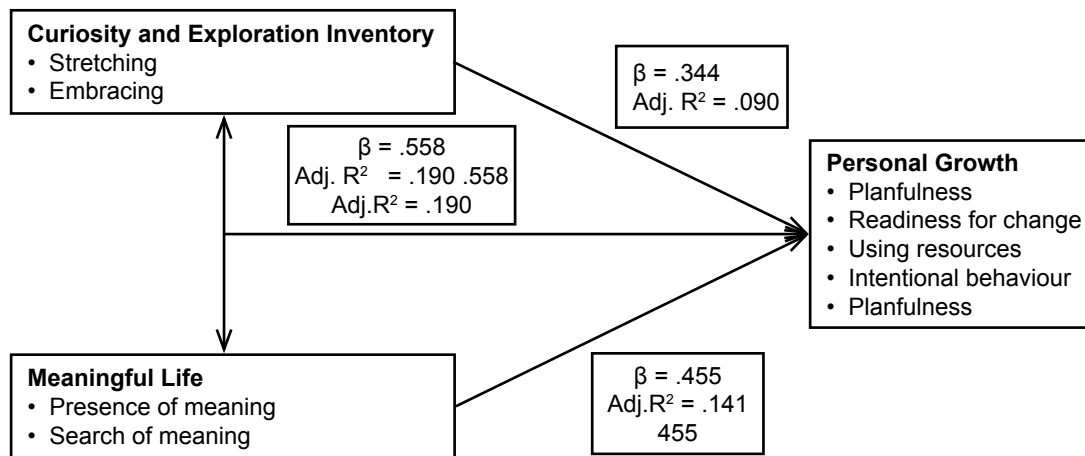


Fig-1 Strength of association between Curiosity, Meaning of life and Personal Growth

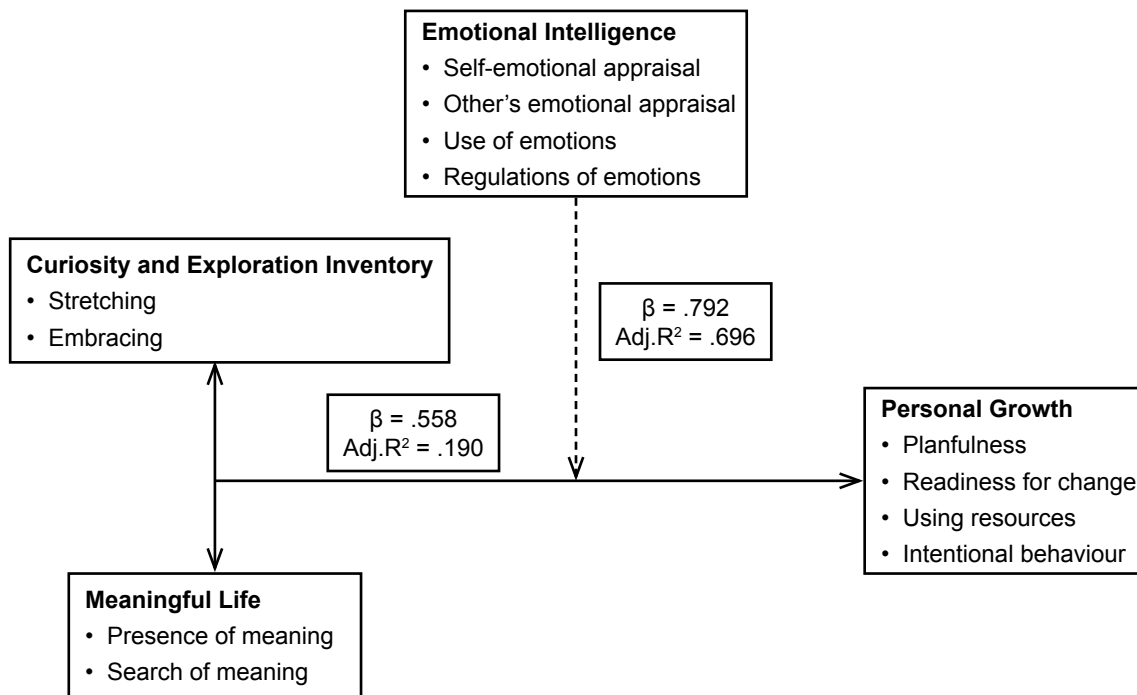


Figure 2. Strength of association between Curiosity, Meaning of life and Personal Growth moderated by Emotional Intelligence

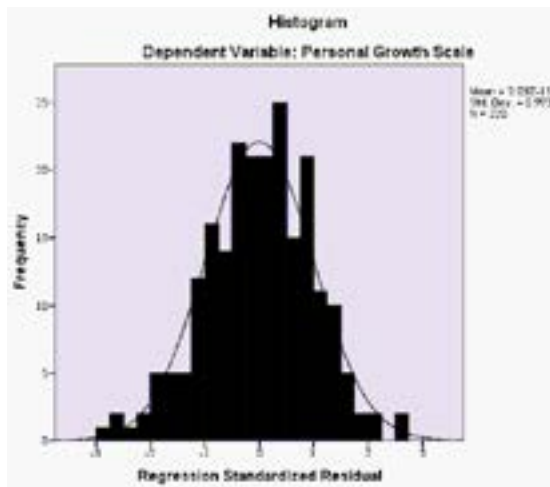


Figure. 3

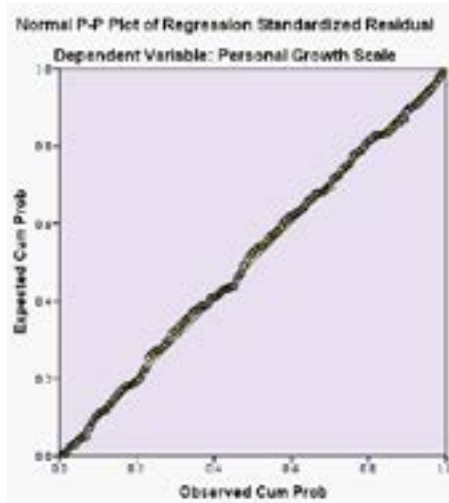


Figure.4

identity (Robitsek & Cook, 1999). Our findings on the factors of curiosity and exploration vis-à-vis personal growth have validated the regulatory theory proposed by Avnet and Higgins (2006) that individuals will pursue goals with greater vigor when the means of doing so matches with their emotional needs. The positive correlation of curiosity with personal growth has supported the findings that curiosity is one of the most frequent strengths of character (Peterson, et al. 2007). The embracing dimension of curiosity and exploration inventory along with meaningful life supports the fact that the individuals who are able to allocate their attention into their preferred/ optional subjects are less likely to become

preoccupied with negative thoughts that may potentially increase depressions (Nakamura & Csikszentmihalyi, 2002). The findings have also been in line with the findings that curious and emotionally intelligent individuals have more eagerness to initiate life enhancing activities, because they perceive themselves as easy, socially approved and beneficial in their personal and professional set ups (Kaczmarek et.al., 2014). The empirical exploration has proved the fact that there are certain aspects of life, which provide a sense of meaning for most individuals such as relationships with others and feelings of connectedness with others lead towards personal growth (Stillman et al., 2009).

The significance of the findings suggests that in higher education context curiosity, exploration and personal growth are very important areas of research, where emotional intelligence acts as a cognitive element among these constructs, conveying the socially accepted behavioral domain for achieving personal growth and success in a learner. The proper guidance from the mentor at this juncture is assumed to enhance adolescent learners' mental health and thus, preventing them from psychological distress. The empirical study has also brought out the fact that our technical students who are comparatively better in their personal growth are assumed to perceive better purposes in their life, having healthier interpersonal relationships with their societies around them, carry a superior sense of self-sufficiency and better control over their environment. However, it cannot be generalized. Hence, more number of studies should be carried on to determine whether the current findings are also relevant in educational/organizational set ups or else these constructs may be manifested differently. The future researchers also need to examine the influence of family set up towards students' career decision making process leading to their personal growth.

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