ROLE OF CREATIVITY IN ENHANCING THE PERFORMANCE OF PROFESSIONAL STUDENTS

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ABSTRACT
This paper presents the role of creativity that contributes a significance impact towards stimulating learning among engineering and management students at Uttar Pradesh with special reference to Jhansi. Important keywords of creative learning: Motivation, Teambuilding and Leadership, Empowerment, learning, communication, conflict resolution, role of emotional intelligence and Knowledge management and the link among these concepts will be presented based on the literature. Further discussions on the above factors described in a manner of how it may stimulates creative and innovative lecturer and teaching engineers and management students, and eventually able to produce creative engineers and managers

KEYWORDS: Creative Factors & Performance.

Introduction:
India is a developing country. There are unprecedented changes seen after LPG policies of government of India. Since 1991 lots of employment opportunities for professional students of India have been created not only by governed organization but also private and global enterprises. These enterprises always search for competent candidates and in India profession colleges are fulfilling their demand by their Knowledge, Skill and Abilities (KSA) equipped students.

In spite of these unlimited employment opportunities for profession students, few students are not finding any place for employment: Some of our professional institutes do not implant KSA as per the demand of global and volatile employment environment of enterprises. So in our views professional institutes are required to incorporate their learning methodology with creativity.

This paper presents the role of creativity that contributes a significance impact towards stimulating learning among engineering and management students at Uttar Pradesh with special reference to Jhansi. Important keywords of creative learning: Motivation, Teambuilding and Leadership, Empowerment, learning, communication, conflict resolution, role of emotional intelligence and Knowledge management and the link among these concepts will be presented based on the literature. Further discussions on the above factors described in a manner of how it may stimulates creative and innovative lecturer and teaching engineers and management students, and eventually able to produce creative engineers and managers.
Some definitions of creativity focus on the nature of thought processes and intellectual activity used to generate new insights or solution to problems. Other definitions focus on the personal characteristics and intellectual abilities of individuals, and still others focus on the product with regard to the different qualities and outcomes of creative attempts (Arad et al., 1997). Ford (1995) explained creativity as a context-specific evaluation can vary from one group, one organization and one culture to another and it can also change over time. Evaluating creativity should therefore be considered at the level of a person, organization, industry, profession, and wider.

Individual creativity was the basic element of organisational creativity and the valuable creativity results were the concrete performance of organisational integration of individual creativity. (Woodman et al, 1993) defined organisational creativity as follows: the individual in the complicated social system created valuable new products, services, ideas or business processes by mutual cooperation. Scholars also indicated that organisational creativity theory was a kind of interaction that tended to be constructed on two variables: team characteristics and organisational structure. Both factors are the base of organisational creativity. After introducing institutionalism in sociology and combining it with the creativity theory in psychology.

Ford (1996) found that organisational environment and domain knowledge would affect individual creative behavior, Ford further confirmed that organisational creativity was the new and valuable results generated from certain specific goal and it could be subjectively judged by the related professional knowledge. Based on knowledge theory, knowledge in the organisational could be divided into implicit and explicit knowledge, explicit knowledge consisted of the facts and it was a kind of declarative knowledge. On the contrary, implicit knowledge could not be concretely described and it was a kind of non-declarative knowledge.

Through exploring the process of implicit and explicit knowledge transformation. Nonaka and Takeuch (1995) suggested that knowledge must be transformed to create organisational knowledge, which responded to the ultimate goal of facilitating organisational knowledge creation and further livened organisational creativity. Organizations with creativity tend to have high degree of knowledge and techniques as well as social and political complicated system.

Schon (1983) also mentioned that organizational and individuals should be flexible and should incorporate lessons learned throughout their lifespan, known as organisational learning., He taught the concept of improvisation and “thinking on one’s feet”, and that through a feedback loop of experience, learning and practice, people can continually improve their work and become a “reflective practitioner”.

In order to transform creativity into innovative results, the organisation must coordinate the knowledge generated from individuals, groups and organizations’, balance the difference of corporate capacity and individual creativity to integrate it into the results meeting organisational or corporate benefits.

From design profession point of views, instead of just focusing on single domain knowledge, successful designer or manager understands the importance of integrating their design experience and design knowledge with the specific organisational goals. In other words, the way of bridging individuals’ knowledge and forming the team/group, creative output is tract for organisational creativity (Bucciareli 2002). The way of accumulating, diffusing, communicating the sharing design experience make design domain knowledge unique from other professions (Wen-Ching Chang et al, 2008).
Some scholars also categorized organizational creativity in two different directions: technical aspect and administrative aspect (Liu 2005), which fall under several types of models or system (Tsai, 1997). By any means, when elevating innovative capacity through management, we still relied on individuals as the sources of new ideas. As to the issues extended from the above two issues affecting organizational creativity, several major factors affecting organizational creativity and the related studies were discussed in various literature (Wen-Ching Chang et al, 2008).

Creative Performance: Motivation, Learning, Teambuilding and Leadership, Empowerment, Communication, Conflict resolution, Role of emotional intelligence and Knowledge management

MOTIVATION & LEARNING

Although many theorists have used the concept in their work, it is difficult to find definitions of motivational orientation. Harter (1978, 1981) has proposed that five aspects of classroom learning are indicative of intrinsic or extrinsic motivational orientations in young children:

- Learning motivated by curiosity versus learning in order to please the teacher;
- Incentive to work for one's own satisfaction versus working to please the teacher and get good grades;
- Preference for challenging work versus preference for easy work;
- Desire to work independently versus dependence on the teacher for help; and
Internal versus external criteria for determining success or failure. Pittman and his colleagues (Pittman, Emery, & Boggiano, 1982) present a similar conceptualization of motivational orientation.

TEAM BUILDING AND LEADERSHIP

The Grid leadership style model was formally expanded recently to include two other approaches called "9+9 Paternalism" (designated "9+9" to indicate its additive rather than integrative nature) and "Opportunism", a model which can incorporate several Grid approaches opportunistically (Blake and McCanse 1991).

The addition of these leadership styles to the model may well have reflected a perceived prevalence of such behavioural dispositions and represented an attempt to stretch the model to embrace these two styles. However, rather than strengthen the model by broadening its scope, it may well undermine the conceptual foundations which were so strongly espoused by Blake and Mouton. For example, the addition of the 9+9 model represents the acknowledgement of an additive, Fleishman-like approach rather than the distinctive, integrative approach which was seen by Blake and Mouton to be essential to their model. Neither Paternalism nor Opportunism is predicted within the integrative, two dimensional models, as originally conceptualized, and their addition potentially serves to question the model's internal validity.

Grid OD is a process designed to install a 9,9 Teamwork leadership model in a team or organisation. 9, 9 Teamwork is a model of team interaction demanding certain individual skills and supported by a shared set of attitudes, values and beliefs.

The 9, 9 skills, which Grid OD endeavors to develop, have already been identified. In addition, the attitudes, values and beliefs it attempts to engender are:

- Leadership as the responsibility of all team members and not simply the formal leader
- Consensus-based decisions as the ideal decision process outcomes
- Diversity of views/ideas as an asset and not as something to be avoided
- Creativity and experimentation
- Trust as an essential ingredient to teamwork
- Synergy - the team together can outperform any one individual
- Feedback as a vital ingredient to individual and team performance
- Participation of team members in decision-making based on their ability to contribute to the quality of a decision or their stake in the outcome of the decision
- Excellence as the only acceptable standard

EMPOWERMENT

Several researchers have concluded that creativity is fostered when individuals and teams have relatively high autonomy in the day-to-day conduct of the work and a sense of ownership and control over their own work and their own ideas (Bailyn, 1985; King & West, 1985; Paolillo & Brown, 1978; Pelz & Andres, 1966; West 1986). Studies of creativity have revealed that individuals produce more creative work when they perceive themselves to have choice in how to go about accomplishing the tasks that they are given (e.g Amabile & Gitomer, 1984)
COMMUNICATION

An organization culture that supports open and transparent communication, based on trust, will have a positive influence on promoting creativity and innovation (Robbins, 1996). An open door communication policy, including open communication between individuals, teams and departments to gain new perspective is necessary for creativity and innovation (Martins and Terblanche, 2003).

CONFLICT RESOLUTION

Recently, Grid has resurfaced in the research literature as a important model of conflict resolution style. Van de Vliert and Kabanoff (1990) refer to Grid's "striking comeback as a leading thesis in the literature on conflict management" (p. 199). When applied as a conflict resolution model, the Grid model is reinterpreted as shown in Figure 2, with the five core leadership styles replaced by five specific conflict resolution strategies.

KNOWLEDGE MANAGEMENT

Knowledge Management is creation, distribution and utilization of knowledge at the individual, group, organizational and community level through harnessing of people, process, and technology for the benefits of those involved and affected by it."

There are three element of knowledge management:

- Knowledge Creation
- Knowledge Sharing
- Knowledge utilization

EMOTIONAL INTELLIGENCE

It refers to an assortment of non cognitive skills, capabilities, and competencies that influence a person’s ability to succeed in coping with environmental demands and pressures. “Emotional intelligence refers to emotional management skills which provide the ability to balance emotion and reason so as to maximize long-term happiness.”
Dimension of emotional intelligence - 
- Self-awareness (know how you feel)
- Self-management (manage your emotions and impulses)
- Self-motivation (can motivate yourself & persist)
- Empathy (sense & understand what others feel)
- Social Skills (can handle the emotions of others)

**Targeted Objectives:**

The main objective of this study is to know how creative learning factors affect or influence the performance of engineering and management students. For this study first we have to describe learning factors and thus be used as background to determine which factor of creativity affect learning.

The other objective in this study is:

- To determine the teachers perceptions towards the creativity.
- To determine the students perceptions towards the creativity.

**Limitations:**

- Participated colleges in this study come from only one city.
- It is not possible in the empirical study to test (measure) all the factors that were identified in the literature study.

**Research Methodology:**

**Sample Design**

A sample design is a define plan for obtaining a sample from a given population. Researcher has selected a non probability sampling design: i.e. Quota sampling.

<table>
<thead>
<tr>
<th>College Name</th>
<th>Engg. Students</th>
<th>Management Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRGI, Jhansi</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>BIT, Jhansi</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>BU, Jhansi</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>SRI, Datiya</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

**Justification for sample Size:** The researcher has selected 100 students as sample size out of total no. of professional students in Jhansi i.e. approx. 5000. There are then eight sampling cells.
The proportion in each cell is .05 (5 Percent), the number of students with those characteristics in my sample for each cell would be:

TOTAL SAMPLE SIZE \times \text{PROPORTION DESIRED IN THE CELL: } \ 100 \\
X .05 = 5 \ \text{So 5 students from each cell would be taken. It means researches will have}

to investigate data from \textbf{40 professional students}.

<table>
<thead>
<tr>
<th>College Name</th>
<th>Teacher (Engg.)</th>
<th>Teacher(Mgmt.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRGI, Jhansi</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>BIT, Jhansi</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>BU, Jhansi</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>SRI, Datiya</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

\textbf{Justification for sample Size:} The researcher has selected \textbf{50} teachers as sample size out of total no. teachers in professional colleges of Jhansi i.e. approx. 500. There are then eight sampling cells.

The proportion in each cell is .04 (4 Percent), the number of teacher with those characteristics in my sample for each cell would be:

TOTAL SAMPLE SIZE \times \text{PROPORTION DESIRED IN THE CELL: } \ 50 \\
X .04 = 2 \ \text{So 2 teachers from each cell would be taken. It means researches will have}

to investigate data \textbf{from 16 professional teachers}.

\textbf{Identification of variables under study:}

\textbf{Independent Variables:} Motivation, Teambuilding and Leadership, Empowerment, Learning, communication, conflict resolution, role of emotional intelligence and Knowledge management

\textbf{Dependent Variable:} Performance

\textbf{Data Analysis:}

The study used descriptive-analytic methodologies.
Teachers Perception

Descriptive Statistics

Table 1:

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
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<tbody>
<tr>
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<td>5</td>
<td>4.00</td>
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<td>.533</td>
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<td>5</td>
<td>4.75</td>
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<td>.200</td>
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<tr>
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<td>2</td>
<td>5</td>
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<tr>
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<td>3</td>
<td>5</td>
<td>4.62</td>
<td>.719</td>
<td>.517</td>
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<tr>
<td>Communication</td>
<td>16</td>
<td>4</td>
<td>5</td>
<td>4.50</td>
<td>.516</td>
<td>.267</td>
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<tr>
<td>Conflict Resolution</td>
<td>16</td>
<td>3</td>
<td>5</td>
<td>3.75</td>
<td>.683</td>
<td>.467</td>
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<tr>
<td>Emotional Intelligence</td>
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<td>4</td>
<td>5</td>
<td>4.25</td>
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<td>.200</td>
</tr>
<tr>
<td>Knowledge Management</td>
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<td>3</td>
<td>5</td>
<td>4.00</td>
<td>.730</td>
<td>.533</td>
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<tr>
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<td>16</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Table 2

Students Perception

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Sum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hygiene Factor</td>
<td>40</td>
<td>1</td>
<td>5</td>
<td>157</td>
<td>3.92</td>
<td>1.023</td>
<td>1.046</td>
</tr>
<tr>
<td>Motivational factor</td>
<td>40</td>
<td>1</td>
<td>5</td>
<td>154</td>
<td>3.85</td>
<td>1.099</td>
<td>1.208</td>
</tr>
<tr>
<td>Team Building &amp; Leadership</td>
<td>40</td>
<td>1</td>
<td>5</td>
<td>145</td>
<td>3.63</td>
<td>1.213</td>
<td>1.471</td>
</tr>
<tr>
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<td>2</td>
<td>5</td>
<td>144</td>
<td>3.60</td>
<td>.982</td>
<td>.964</td>
</tr>
<tr>
<td>Learning</td>
<td>40</td>
<td>2</td>
<td>5</td>
<td>158</td>
<td>3.95</td>
<td>.846</td>
<td>.715</td>
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<tr>
<td>Communication</td>
<td>40</td>
<td>1</td>
<td>5</td>
<td>165</td>
<td>4.12</td>
<td>.911</td>
<td>.830</td>
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<tr>
<td>Conflict Resolution</td>
<td>40</td>
<td>2</td>
<td>5</td>
<td>151</td>
<td>3.78</td>
<td>.920</td>
<td>.846</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
<td>40</td>
<td>1</td>
<td>5</td>
<td>128</td>
<td>3.20</td>
<td>1.305</td>
<td>1.703</td>
</tr>
<tr>
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<td>3.15</td>
<td>1.545</td>
<td>2.387</td>
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<tr>
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<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

*Scale 1 = disagree, 2 = somewhat disagree, 3 = somewhat agree, 4 = agree, 5 = strongly agree
Conclusion:

Based on the perceptions of students and teachers the mean scores for the creative variables ranged from 3.75 to 4.75 suggesting that the respondents, as a group, believe each creative variables or factors to be agreeing the creative factors are responsible for creative performance of the students. Among the creative variables, the mean score for team building and leadership (4.75) was the largest. Learning is rated below the team building & leadership with a mean score of 4.62. The mean score for conflict resolution is the lowest among the nine variables. The range of other variables also shows that they were responsible for creative performance of the professional students. The total mean (4.23) shows the creative variables or factors are suitable for enhancing the creative performance of the professional students.

The same way the mean score of the creative variables of the students ranges from 3.15 to 4.75 suggesting that the respondents as a group believes to each creative variables or factors to be moderately agreeing the creative factors are responsible for creative performance of the students. Among the creative variables, the mean score for communication (4.12) was the largest. Learning factor is rated below the communication with a mean score of 3.95. The mean score for knowledge management is the lowest among the nine variables. The range of other variables also shows that they were responsible for creative performance of the professional students. The total mean (3.68) shows the creative variables or factors are suitable for enhancing the creative performance of the professional students.

As per above descriptive statistics, individual mean of variables shows that most of them contribute in the improvement of performance of professional students.

So we can finally conclude that creativity has its direct impact on the performance of professional students. This study has served to provide empirical evidence for the importance of creativity in enhancing performance of professional students.

References