Abstract

Acquiring a generalized managerial skill that is creative and constructive but not critical, proactive but not reactive, perceptual but not logical is a plausible solution for a school head as a school leader and manager. Some researchers viewed that the jobs of principals are arduous to manage due to changing school scenario in a global world nevertheless with directive to equip for competitive advantage. With the universal organizational struggle getting tougher, mere management competency or being creative, singularly often proves to be insufficient. Hence, it was pertinent to enter into the domain of 'managerial creativity', which is in fact 'finding solutions of the problems, managing physical/human/financial resources of school in creative ways furnishing a winning edge to any manager or a leader of any organization or a school. Reiterating, Turkson & Appiah (2009), that creativity add a very pertinent flavour to the practice of management by people in all forms of managerial positions and that in the absence of practical application of creativity, these mangers cannot be visionary leaders. Although, from the studies reassessed, a variable 'managerial creativity' for the sample 'school heads” were left unidentified. The need to develop the scale that measures the confluence of management skills and creativity for the school heads became imperative.

I. INTRODUCTION

The role of leadership is a critical ingredient, “second only to classroom instruction among school related factors that affect student learning in school”. Thus, school leadership and student outcomes have recently come to receive greater attention in research and among policy makers in United States and England (Leithwood, et.al 2004). However, in contrast to the international emphasis, literature on importance and consequences of school
leadership in Indian context is as sparse as the attention it receives in policies and programs is a neglect (Azim Premji Foundation, 2011).

The success of school organisation whether it be at the higher secondary level, secondary level or the elementary level depends upon the effective leadership and management of the head of the institution. In the 21st century the efforts of the head of the institution has been widely recognised as one that is very crucial in bringing about Quality Education. School being as a social organisation has a collective sets of goals and objectives (Krishnamacharyulu, 2006). The school manager's management skills can bring about coordination of work among many functioning under one roof; it competently and effectively leads to achieve the organisational objectives (Kreitner, 2004). However, today, in a world full of competition, it is not usually possible to manage the school by following stereotype routines, so the head of the school should embark upon using his/her creative ability skills to manage the school. The heads of the school needs to map out and explain more fully, the richness and complexity of skilfulness, resourcefulness, ingenuity, inventiveness, originality, fluency, flexibility, and evaluative execution of managerial responsibilities. There is a need for divergent thinking abilities in the open ended tasks of the schools as leaders. Hence, leadership traits with managerial creativity is the need of the present global humanity; schools, at present should be guided and directed by leaders who uses their management skills fused with creativity to solve problems they encounter in regular processes and operations of school management.

II. JUSTIFICATION OF THE STUDY

Nonetheless, while arriving at the most common platform of empirical understanding, a few recent research studies on "managerial creativity" were initiated in India (Jain, et.al.2011; Rashid, 2012 & Wadhwani, 2014), with samples like executives, school/college principals and secondary school/tribal teachers. Though, a self constructed Managerial Creativity Test for higher education students by Wadhwani (2014) as well as self developed/standardized Managerial Creativity Scale (MCrS) keeping in view the organizational executives by Jain.et.al (2011) found, were not presently appropriate for the sample under study. Studies in Abroad (Duze, 2011; Scratchley.et.al, 2001; Turkson & Appiah, 2009; Anderson, 2006; Mathibe,2007 and Scratchley, 1998) depicted 'managerial creativity' as a quality of managers engulf with creativity for managing an organization towards growth and development. The need to develop the Managerial Creativity Scale for the Heads of Primary Schools (MCSHPS) arose. Thus, Managerial Creativity is operationally defined as the confluence of components like getting things done, developing staff, improving self and leading towards organisational success through leadership, expertise, motivation and creative thinking skills.

III. SAMPLE OF THE STUDY

The sample of the present study consists of Heads of Government primary schools located in semi-urban Garo Hills Districts of Meghalaya. The proportionate stratified
random sampling technique was used to select. On the basis of different stages of test constructions and standardization, the initial sample strength for the three phases of try-out was divided as 10%, 20% and 10% of total population, for the proportional representation of Government Primary school heads from all the blocks of the districts under study.

IV. DEVELOPING THE MANAGERIAL CREATIVITY SCALE FOR THE HEADS OF PRIMARY SCHOOLS (MCSHPS)

4.1 Item Writing

The item writing for the 5 point Likert Managerial Creativity Scale for the Heads of Primary Schools (MCSHPS) were framed in accordance to the learning domain of Bloom's Taxonomy of cognitive domain, affective domain and psychomotor domain. Through the confluence of components from Management Skill Pyramid of F.John Reh (2009) with the Componential Theory of Creativity of Teresa Amabile (1983), the items in accordance to the 20 dimensions of Managerial Creativity Scale for Heads of Primary Schools (MCSHPS) were shaped in forms of favourable or unfavourable statements. The items written incorporated the views of field experiences obtained through Focus Group Discussion and/or Personal interviews. This was reflected through the item statements. Efforts were made to merge in all the 7 Confluence of Components towards the shaping of the 20 multi-dimensions of Managerial Creative Scale for Heads of Primary Schools (MCSHPS) by comprehensively taking into account the role of creativity in the managerial responsibilities of school heads pertaining to management, school management, leadership, school leadership and creativity as shown in Table 1.1. Items shaped depicted the dimension under the confluence of components from Management Skills Pyramid and Componential Theory of Creativity. Positive statements were initially framed, half of it was rewritten in negative form and eventually it was edited subjected to expert’s comments, suggestions and criticisms. The steps followed are shown below.

4.2 Stages of Construction and Standardization

4.2.1 Stage I: Preliminary Try-out: The statements selected for the preliminary try out were 176, containing 50% of positive polarity and 50% of negative polarity. The statements were given for 20 expert opinions views for comments, suggestions and necessary modifications to be incorporated in subsequent try-outs. Based on the 20 dimensions of MCSHPS, Personal Interviews (PI) and Focus Group Discussions (FDGs) with experienced Head Teachers in the field of school management also reinforced the statements. FDGs with the Sub-Divisional School Education Officers of Government of Meghalaya added much significance to the authenticity of the determining statements of the 7 confluence of components merged from Management Skills Pyramid and Componential Theory of Creativity. Out of 176 primary statements, after meticulously incorporation and/or elimination, 146 items were found suitable for the first try-out.

4.2.2 Stage II: First Try out The first tryout MCSHPS was done with 146 statements, i.e 73 negative polarity items and 73 positive polarity items. This was administered to a sample of
165 randomly selected Heads of Primary Schools. MCS<sub>HPS</sub> booklets with incomplete responses to a maximum of 3 items were to be eliminated from analysis.

**4.2.3 Stage III: Item Analysis:** After obtaining the total score for each respondent, the step for analysis was applied by following Kelly's method. The highest 27% and the lowest 27% is then taken out to provide the best compromise between the two desirable and inconsistent aims- (i) to make extreme group as large as possible and (ii) to make extreme group as different as possible. The scores obtained for each item in these two extreme groups were used for calculating the discriminating power of each item. The discriminating power was obtained by calculating the critical ration "t" by using the formula given by Edwards (1957).

**4.2.4 Stage IV: Selection and Preparation of Final Items:** Altogether 80 items having p-value of 2.75 and above were selected and the 66 items having p-value below 2.75 were rejected. The items of MCS<sub>HPS</sub> were arranged in order of their discriminative value. Equal number of positive and negative items was selected encompassing every confluence of components and dimensions in a proportionate manner. The 80 items selected through item analysis were evaluated for language appropriateness by the experts and on the suggestion of experienced heads of primary schools and educationists, the statements were translated into Garo language in order to obtain true and correct reply from the respondents belonging to the two Garo Hills Districts of Meghalaya.

**4.2.5 Stage V: Final Try-Out:** Out of selected 80 items having p-value of 2.75 and above, only 42 selected items in consistent to the confluence of components and multi-dimensions of MCS<sub>HPS</sub> were prepared after the item analysis for the final try out of the scale as shown. After compulsory preparation for the final try-out, the MCS<sub>HPS</sub> was distributed amongst 82 primary school heads of the two districts of Garo Hills region of Meghalaya for establishing the parameters of validity, reliability, usability and norms of MCS<sub>HPS</sub>.

### Table 1.1 Final number of items in consistent with dimensions of MCS<sub>HPS</sub>

<table>
<thead>
<tr>
<th>SI No</th>
<th>Confluence of Management Skills and Creativity</th>
<th>Dimensions of Managerial Creativity</th>
<th>Positive</th>
<th>Negative</th>
<th>Total</th>
</tr>
</thead>
</table>
| 1     | Get it done                                 | 1. Planning  
2. Organising  
3. Directing  
4. Controlling | 4        | 4        | 8     |
| 2     | Develop staff                               | 1. Motivation  
2. Training and Coaching  
3. Involvement | 4        | 4        | 8     |
| 3     | Improve self                                | 1. Time Management  
2. Self Management | 2        | 2        | 4     |
| 4     | Success                                     | 1. Vision  
2. Mission  
3. Ambition | 3       | 3        | 6     |
| 5     | Expertise                                   | 1. Hard skills  
2. Soft skills | 2        | 2        | 4     |
| 6     | Motivation                                  | 1. Extrinsic Motivation | 2        | 2        | 4     |
2. Intrinsic Motivation

<table>
<thead>
<tr>
<th>Creative thinking skills</th>
<th>1. Fluency</th>
<th>2. Flexibility</th>
<th>3. Originality</th>
<th>4. Elaboration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4</td>
<td>4</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

Total |

20 Dimensions |

21 |

21 |

42

4.2.6 Stage IV: Standardization of MCS\textsubscript{HPS}: The vital standardization procedure through establishment of validity, reliability, usability and norms was made.

4.2.7 Establishing Validity: The validity of present scale was estimated through Face validity, Content validity and internal consistency validity.

The face validity of the Managerial Creativity Scale for the Heads of Primary Schools (MCS\textsubscript{HPS}) was estimated in the pre-tryout of the preliminary draft stage by a series of systematic consultations of items during the process of construction. Multiple FGDs gave an impetus to the validity of the scale through their ideas of field experiences which were much in tandem with the confluence of components and dimensions for the construction of the scale. The content validity of the Managerial Creativity Scale for Heads of Primary schools (MCS\textsubscript{HPS}) was ensured through meticulous evaluation of the items by the educationists and experts, like Sansanwal, D.N (2016); Nongbri, C (2015); Awasthi, K (2015); Sharma, D (2014); Madhusudan, J.V (2014); Marak, F.K (2014); Momin, N.S .C (2014); Marak, M (2014). Ambiguous statements, vague words and double barrel statements were accordingly reworked or removed after the item evaluation stage. The internal consistency validity was found during the item analysis stage.

4.2.8 Establishing Reliability: In order to determine the external consistency reliability of the Managerial Creativity Scale for Heads of Primary Schools (MCS\textsubscript{HPS}), final 42 items were administered to 82 subjects belonging to West and South-West Districts of Garo Hills of Meghalaya. To establish predictability or stability of the scale test-retest was conducted on the scale. After a gap of 4 weeks, the same scale was administered again to the same group of respondents. The scores obtained were calculated and the reliability index was found to be at .72 and is significant at 0.01 levels of confidence, meaning that 72% of the variance in the scores are reliable and 28% is the error variance. However, in order to determine the internal consistency reliability or the coefficient alpha reliability of the scale, the 42 items were divided into 21 odd items and 21 even items, the Cronbach's Alpha in SPSS was used and reliability coefficient obtained is .835 while Cronbach's Alpha Based on Standardized Items obtained is .891 indicating that MCS\textsubscript{HPS} measures variable with extremely high reliability. The reliability of the Managerial Creativity Scale for Heads of Primary Schools (MCS\textsubscript{HPS}) is highly reliable externally and internally.

4.2.9 Establishing Usability: The Managerial Creativity Scale for Heads of Primary Schools (MCS\textsubscript{HPS}) can be used for individual as well as group administration. The MCS\textsubscript{HPS} during individual administration can be enhanced by an open ended personal interview and Focus Group Discussions to map out and explain more fully, the richness and complexity of
creativity in the managerial responsibilities of the school leaders with a scope shaped out for
divergent thinking responses.

4.2.10 Scoring Procedure: The scoring procedure for each answer to every statement is
as given in the Table 1.2. The range of scores for the Managerial Creativity Scale for Heads
of Primary Schools (MCS Had) is 42 to 210, wherein the minimum scores could be 42 (i.e 1 x 42) and maximum scores could be 210 (i.e 5x42).

Table 1.2: Scoring Procedure Managerial Creativity Scale for Heads of Primary Schools

<table>
<thead>
<tr>
<th>Degree of Favourability</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polarity of Items</td>
<td>(SA)</td>
<td>(A)</td>
<td>(U)</td>
<td>(D)</td>
<td>(SD)</td>
</tr>
<tr>
<td>Positive Items</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Negative Items</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

4.2.11 Establishing Norms and Interpretation: Percentile norms for the whole scale as
per quartile deviation were established on the basis of raw scores made against the sex
criterion. The score under each percentile are illustrated in the table 1.2. The interpretation
of percentile norm is done on the basis of quartile as given in Table 1.3. A very high score
above the 76th percentile is found to have High Managerial Creativity (HMC). Moderate
Managerial Creativity (MMC) is scores from P51 above to P75. Low Managerial Creativity
(LMC) is identified between percentiles P26 to P50. Scores between P05 to P25 are Very Low
Managerial Creativity (VLMC).

4.2.12 Description of Managerial Creativity Level: The description of the interpretation
(Table 1.4) of the various level of Managerial Creativity of the Heads of primary schools is
indicative that heads of government primary schools with High Managerial Creativity levels
are described as those who operationally merged in operating managerial skills with
creativity in their leadership responsibilities; Moderate Managerial Creativity level scorers
are those who need support through motivation, training and coaching, in hard skills & soft
skills for fluency, flexibility, originality and elaboration of ideas/skills for development of
Managerial Creativity Skills in their managerial positions. Low Managerial Creativity
scorers are heads that needs to be sensitized, made aware and motivate about the force of
creativity while getting things done, developing staff, improving self and achieving success
as a leader of the school. Very Low Managerial Creativity scores are indicative of utter
negligence in skills of managerial dimensions as well as creativity dimensions.

Table 1.3: Percentile Norms and Interpretation of Managerial Creativity Level

<table>
<thead>
<tr>
<th>Percentile</th>
<th>Raw Score Of Male Head Teachers</th>
<th>Raw Score Of Female Head Teachers</th>
<th>Interpretation Of Managerial Creativity Skills Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>P95</td>
<td>177</td>
<td>175</td>
<td>High Managerial Creativity</td>
</tr>
<tr>
<td>P90</td>
<td>174</td>
<td>172</td>
<td></td>
</tr>
</tbody>
</table>
Table 1.4: Interpretation and Description of Managerial Creativity Level

<table>
<thead>
<tr>
<th>Managerial Creativity Level</th>
<th>Description Of The Managerial Creativity</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Managerial Creativity</td>
<td>Totally involved in Managerial Creativity Skills.</td>
</tr>
<tr>
<td>Moderate Managerial Creativity</td>
<td>Needs Support for Managerial Creatively Skills.</td>
</tr>
<tr>
<td>Low Managerial Creativity</td>
<td>Affirms attention for Creativity in Managerial skills.</td>
</tr>
<tr>
<td>Very Low Managerial Creativity</td>
<td>Negligent of skills for Managerial responsibilities.</td>
</tr>
</tbody>
</table>

V. DIRECTION OF ADMINISTRATION OF THE SCALE

The heads of the primary schools were contacted and Managerial Creativity Scale for Heads of Primary Schools (MCS_HPS) were administered either individually or in groups. Instructions were given as per as the booklet cum answer-sheet. Each of the school head were asked to answer spontaneously to the items by reading carefully and responsibly with accountability as a school manager. Alongside, on each of the dimension of the scale, Personal Interviews and Focus Group Discussions were followed to qualitatively supplement the responses obtained to understand their divergent skills of creativity in managing and leading their schools.

VI. CONCLUSION

Although the management literature has hailed managerial creatively as a necessity in current climate of rapid change and global competition, little has been done to help organisations to identify and select managers who have potential to be creative on a job more so in education in general and schools in particular. This psychological tool can help in identifying and selecting teachers into management positions in school, teacher who not
only have teaching competency but potential to take the school in new and useful directions. This scale can help in identification of managerial creativity of individual school leaders and can be used for the purpose of recruitment, promotion, training, professional development and certification of the primary school heads irrespective of gender, training, experiences and location of school.

VII. REFERENCES


To Cite This Article