ABSTRACT

Introduction

Education is a powerful instrument that unlocks the door to prosperity of a nation. It is one of the main keys to the development and the improvement of mankind. In the annals of history, education had many features, shades and meanings but it had only one aim, i.e. to “make the recipient learned”. In the general sense, the term education is used as a form of learning, in which the knowledge, skills, values, beliefs, and habits are transformed from one generation to next (Ahmad & Garg, 2007).

According to the Report of Education Commission of 1964-66, “The destiny of India is now being shaped in her classrooms” (Aggarwal, 1966). In this context and in facing up the challenges of new century, a teacher plays a role of a perceiver who recognizes the potential of the individuals and builds up young generation to be ready and capable for rapid global development in different areas. That is why a small word “Teacher” reflects a magnificent mixture of the most precious qualities of excellence in mankind. He serves as showers that transform even a wasteland into a Greenland. Therefore, a teacher along with the expertise of his subject area should be able to understand the needs and qualities of students and should nurture them accordingly.

A teacher functions within the broader framework of the school education system as he helps in determining the goals, curricula, materials, strategies, methods and then to achieve these determined goals. A teacher prepares a relation between the needs and demands arising in the school context. NCF (2005) stated that a teacher should be a facilitator in children’s learning and in constructing his knowledge. He/she should possess the understanding of subject content, pedagogy and curriculum as well as of community, school structures, students’ needs and interests so that he/she can participate in the construction of syllabus, textbooks and teaching-learning material. He should help in creating an integrated school climate, which will provide equal opportunities to children of special abilities, varied social backgrounds and diverse learning needs. He should adjust the climate of classroom and school for relating teaching process in accordance with special needs of all learners.

Teachers are also considered to be responsible for the total development of learners: physical, intellectual, social, moral and spiritual. Therefore, they should possess
positive attitude, values and outlook as a skilled person. Teacher should engage themselves with children in their context, school curriculum, textbooks, teaching-learning process, knowledge construction, psychological and professional development, understanding of institutional arrangements, policy perspective, pedagogy and curriculum. In the field of education, creativity is basic element and essential for learning. Therefore, educational system must accept the responsibility of developing creative individuals who can solve the problems of modern society and not become a burden and stigma on the society. Creativity is the rarest of the human qualities. It is an innate genius present in humans as a distinct potential, a unique gift, which is spontaneous but not common in all the individuals. Creativity, with its many definitions has been known for a long time to have its influence on human activity in almost all spheres: scientific, technical, literary, artistic. Basically, it refersto the capacity of a person to produce new compositions, products or novel ideas and solutions to complex, ambiguous problems. It is the application of knowledge and skill in new ways sometime going beyond the limits, to achieve valuable outcomes (Husen & Postlethwaite, 1994, Gandini, 1992).

The present study aims to compare the attitude of secondary school teachers of science and arts stream towards nurturing creativity in relation to gender difference, rural-urban location and school climate.

Statement of the Problem

Briefly, the title of the present study is:

“A comparative study of attitude of secondary school teachers of Science and Arts streams towards nurturing creativity in relation to rural-urban location, gender difference and school climate”.

Importance of the Study

The present research would be useful in the following manner:

- The study will help the teachers to assess their attitude towards nurturing creativity.
- The study will be helpful for the teachers to know about different kinds of factors, which have great impact on the enhancement of creativity like socio-
economic status of family, anxiety of individual, restricted environment, poor inter-personal relationship etc. They would be able to know the factors, which creates hindrance in the innovativeness.

- The study will be beneficial for teachers and administrators as they will get the knowledge about how to enhance creativity among students.

- The study will create awareness among teachers and students about the misconceptions related to creativity like it is only an inborn gift, or it is reserved for certain kind of people or it can be nurtured through training etc., which are prevailing among them.

- The study will provide a helping hand to teachers in identifying the creative individuals. They will be aware of the personality traits and behavioural pattern and cognitive styles of creative individuals.

- The teachers will be able to know the role of school climate in nurturing creativity and what kind of facilities should be available in schools to promote it.

- The teachers will be able to understand the importance of freedom, motivation, different teaching strategies, co-curricular activities etc. in cultivating creativity of students.

- The study will provide a helping hand to administrators by making them aware about the attitude of secondary school teachers towards nurturing creativity among students.

- Administrators will also get benefit from the research through the knowledge of relationships among teachers, teachers and students and parents etc.

- As it is well known fact that a safe and supportive environment nurtures social and emotional, ethical and academic skills so the study may be helpful to teachers to know the psychological environment of secondary schools.

- The research will help those people who are interested in the studies related to creativity, social sciences, specially education and psychology.
The results and recommendations of the study will help in developing the educational atmosphere in secondary schools.

**Research Objectives**

The present study aims to achieve the following objectives:

1. To assess the attitude of secondary school teachers towards nurturing creativity (Total & Dimension-wise)

2. To assess the attitude of secondary school teachers belonging to Science Stream towards nurturing creativity (Total & Dimension-wise)

3. To assess the attitude of secondary school teachers belonging to Arts Stream towards nurturing creativity (Total & Dimension-wise)

4. To know the difference between secondary school teachers belonging to Science and Arts Streams in the attitude towards nurturing creativity (Total & Dimension-wise)

5. To know the difference in the attitude of secondary school teachers belonging to Science Stream towards nurturing creativity in relation to location (rural/urban) and gender (male/female) (Total & Dimension-wise)

6. To know the difference in the attitude of secondary school teachers belonging to Arts Stream towards nurturing creativity in relation to location (rural/urban) and gender (male/female) (Total & Dimension-wise)

7. To assess the quality level of secondary school climate from the point of view of teachers (Total & Dimension-wise)

8. To assess the quality level of secondary school climate from the point of view of teachers belonging to Science Stream (Total & Dimension-wise)

9. To assess the quality level of secondary school climate from the point of view of teachers belonging to Arts Stream (Total & Dimension-wise)

10. To know the effect of school climate on attitude of secondary school teachers towards nurturing creativity
11. To know the effect of school climate on attitude of secondary school teachers towards nurturing creativity according to stream of teaching (Science & Arts)

12. To construct structure equation model to represent the mathematical relationship between the components of attitude of secondary school teachers towards nurturing creativity and school climate

Research Method

Since the major objective of this research is to ‘compare the attitude of secondary school teachers of Science and Arts streams towards nurturing creativity in relation to rural urban location, gender difference and school climate’ therefore, the most suitable method for the purpose is Descriptive Survey Method.

Research Sample

The population of the study is secondary school teachers of Western Uttar Pradesh. A sample of 654 secondary school teachers has been selected through multi-stage and stratified random sampling techniques.

Research Tools

In the present research, two tools have been constructed by the researcher: (a) tool of ‘Attitude of secondary school teachers towards Nurturing Creativity’ and (b) tool of ‘School Climate’. The validity criterion of the tools has been ensured through two methods: content validity and construct validity. Alpha Cronbach Coefficient has been used to assess the reliability of the tools. The reliability coefficient of ‘Attitude towards Nurturing Creativity’ is 0.88 while for the scale of ‘School Climate’ the reliability coefficient is 0.89. The final format of the scale ‘Attitude towards Nurturing Creativity’ consisted of five domains: ‘Concept of Creativity’, ‘Factors affecting Creativity’, ‘Enhancement of Creativity’, ‘Myths related to Creativity’, ‘Identification / Indicators of Creativity’ while the final format of scale ‘School Climate’ consisted of four domains: ‘Relationship among teachers, students, parents and society’, ‘Physical Facilities’, ‘Psychological Environment’, ‘Academic Activities’. The tools offered three choices to express different degrees of responses (as for attitude towards nurturing creativity: Agree = 3, Don’t Know = 2, Disagree =1 and school climate scale: Yes =3, Partly = 2, No = 1).
Statistical Methods

The data has been analyzed with the help of SPSS and AMOS Graphics and subjected to statistical treatment at three levels:

a. Analysis to check the normality and homogeneity of the data
b. Descriptive statistics (mean, standard deviation, and percentage etc.)
c. Inferential analysis (‘t’ test, ANOVA, Regression, Structured equation modelling and Effect size etc.)

Findings

The present study is an effort to compare the attitude of secondary school teachers of Science and Arts streams towards nurturing creativity in relation to rural urban location, gender difference and school climate. The study consisted of a representative sample of 654 teachers taken from the target population. The main findings are as follows:

1. The attitude of secondary school teachers towards nurturing creativity is positive. They have good knowledge about creativity, barriers affecting creativity, enhancing creativity among students, misconceptions related to creativity and indicators of creativity.

2. According to secondary school teachers, creativity is mostly affected by autonomy or freedom at the work place then the parenting style of offspring.

3. The most prevailing misconception among teachers about creativity is that ‘creativity is reserved for the people of certain caste and race’ and the most common indicator of creativity is ‘diversity of ideas in creative people’.

4. The attitude of secondary school teachers belonging to Science stream as well as of those belonging to Arts stream towards nurturing creativity is positive but secondary school teachers belonging to Arts stream have more favourable attitude towards nurturing creativity in comparison to their counterparts of Science stream.
5. Place of living and gender do not cause any statistically significant difference in the attitude of secondary school teachers belonging to Science Stream towards nurturing creativity.

6. The secondary school teachers belonging to Arts Stream living at urban area have more favourable attitude towards nurturing creativity than their counterparts living at rural area. Gender of teachers belonging to Arts Stream also causes a difference in their attitude towards nurturing creativity as male teachers have more positive attitude than female teachers.

7. The results also reveal that the quality level of school climate is better than average level in secondary schools from the point of view of teachers.

8. School climate emerges as a significant predictor and explains around 20% of variance in attitude towards nurturing creativity of secondary school teachers.

9. According to the teaching stream of teachers (Science and Arts) school climate emerges as a significant predictor. As according to Science teachers school climate explains 24% of variance in attitude towards nurturing creativity and according to Arts teachers school climate explains 12% of variance in the criterion variable.

10. The result of structure equation model confirms that all the domains of both tools 'Attitude towards nurturing creativity and school climate' estimate each other significantly but the domains of ‘school climate’ estimate higher than the domains of ‘attitude towards nurturing creativity’.

**Recommendations/Implications**

The following paragraphs describe the implications of the findings of present study for different stakeholders:

**Implications for Policy Makers/Planners/Administrators**

1. In the light of findings of the study, it can be suggested that new courses in Psychology and Education should be added at Bachelor degree to develop the concept of creativity and other psychological concepts among the future teachers.
2. Guidance and counselling programs may be organized in the schools to discover creative children and to provide proper guidance for shaping the abilities and skills of innovation and creativity among students.

3. Workshops, seminars and training programs related to creativity and its various aspects as how to identify and nurture creativity, how to remove the barriers affecting creativity and importance of creativity may be conducted for the teachers and administrators.

4. Skill based programs and courses may be included in the curriculum to develop the creativity among students.

5. Educational facilities like computers, smart classrooms, sport facilities, laboratories and equipped libraries may be made available for promoting creativity among students.

6. Co-curricular activities, field excursions may be made an essential part of course work.

7. As the school climate is an important factor in educational system therefore, workshops and seminars may be organized on the qualities of good school climate for the teachers, administrators and principals.

8. Government may formulate new standards to improve quality level of school climate, which may be used by the evaluators or the researchers to evaluate the quality level of schools.

9. There should be continuous evaluation of schools so that they may improve qualitative parameters of school climate.

10. It is suggested that the government should bridge the gap between the rural and urban locations by providing rural students amenities and facilities at par with urban students. Moreover, adequate incentives may be provided to rural area teachers to encourage them to put their best contribution in teaching-learning process.

11. It is suggested that provisions may be made for the cultivation of creativity among students and creative teaching.
12. The findings of the study reveal that autonomy at work place affects creativity therefore, freedom may be provided to teachers at planning level, execution level and evaluation level.

**Implications for Teachers**

1. The findings of the study emphasize that teachers should understand the importance of creativity. They should be aware of various aspects of creativity so that they can identify the novelty and originality among students. Thus, recognizing creative talent of children may enable the teachers to organize their instructions according to the individual needs and thus, it may be helpful in facilitating creativity among students.

2. The study would create awareness among teachers about the concept of creativity and the parameters of considering a product creative or innovative. They would be able to understand that interesting and useful teaching-learning material, co-curricular activities, use of multimedia in teaching, motivation may be helpful for developing creativity among learners. They may create innovative environment in the classrooms. They may use innovative methods and strategies of teaching and organize field trips for students.

3. The study would be helpful for the teachers to know about the factors, which negatively affect the enhancement of creativity (i.e. anxiety of individual, restricted environment, poor inter-personal relationship etc.). The knowledge of this aspect would enable them to decrease the impact of these factors, which creates hindrance in the innovativeness.

4. School teachers may use analytical and criterion based evaluation procedures to make teaching-learning process more effective. They may use child centred methods so that they may interact with students openly and understand their needs.

5. Individual difference, curious and exploratory nature of students may be taken into consideration by teachers and curriculum planners so that students may get opportunities to explore their creativity.
6. The findings of the study would create awareness among teachers and students about the misconceptions related to creativity (such as creativity is only an inborn gift, or it reserved for certain kind of people or it may be nurtured through training etc.), prevailing among them so that they may overcome them.

**Suggestions for Further Research**

This research extends the following suggestions for future researches:

1. This study focuses on the attitude towards nurturing creativity among teachers, future researches may be conducted to know the level of creativity among students.

2. Future study may be conducted using a variety of evaluation methods like observation and interview etc.

3. The present research has been carried out on secondary school teachers. Future research may be conducted at college and University level.

4. The present research has taken into account teachers of Western U.P. only. Future studies may be conducted on some other geographical area.

5. The present research is a descriptive survey research as it is describing the attitude of teachers. In future, experimental researches may be carried out to develop attitude of teachers towards nurturing creativity through training program.

6. Future studies may assess the attitude towards nurturing creativity in relation to other variables i.e. teaching experience, educational qualification, religion, age etc.

7. A comparative study may be carried out on the attitude towards nurturing creativity of in-service teachers and teacher trainees.

8. Future studies may be conducted to measure the effect of creative training on the attitude towards creativity in relation to school climate.
9. Future studies may be carried out to find out the impact of cognitive variables (like intelligence, reasoning ability, meta-cognition etc.) on creativity of students in relation to school climate.

10. Future studies may also be carried out to find out the relationship between school climate, intelligence, teaching efficiency, academic achievement and other variables related to students and teachers.