



A STUDY OF CREATIVE THINKING ABILITY OF D.El.Ed STUDENTS

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ABSTRACT

The present study was aimed to study the creative thinking ability of D.El.Ed students with respect to their gender, residence, locality and parent's occupation. An intact sample of 739 students from 15 teacher training institutes was selected. The study made use of the self made tool for Creative thinking ability. t-test and F-test were used to analyse the data. The results revealed that the female students were better than the male D.El.Ed students in their Flexibility of creative thinking ability. Urban students are better than the rural D.El.Ed students in their elaboration of creative thinking ability. The findings suggest that creative thinking ability has more to do with beliefs than practices. The strong belief in a particular teaching perspective, whether product or process oriented, may have a negative impact on creative thinking ability and that developing reading, writing and self-expression abilities is likely to help develop the ability of elaboration.

KEYWORDS : Creative Thinking Ability and D.El.Ed Students

Introduction:-

Creativity is a mental and social process involving the generation of new ideas or concepts, or new associations of the creative mind between existing ideas or concepts. Creativity is fuelled by the process of either conscious or unconscious insight. Creativity happens when various forces - be they environmental, motivational or psychological interact to create something unique. It is an inborn capacity for thinking differently than most, seeing differently, and making connections and perceiving relationships others miss. According to Michael D. Higgins - The roots of a creative society are in basic education. The sheer volume of facts to be digested by the students of today leaves little time for a deeper interrogation of their moral worth. The result has been a generation of technicians rather than visionaries, each one taking a career rather than an idea seriously. The answer must be reform in our educational methods so that students are encouraged to ask about know why as well as know -how. Once the arts are restored to a more central role in educational institutions, there could be a tremendous unleashing of creative energy in other disciplines too.

A country economic growth can be sustained till the creative potential of population are sought out and attracted into required educational channels. In India the development of creative potential of an individual was the secondary subject earlier. But presently creativity and innovative adaptive process can help the social organizations, individuals and nation to large extent to meet effectively and solve appropriately the emerging and challenging problems of this new world of science and technology. In any system of education, willingness on the part of pupils to learn, determination of the teachers to teach and anxiety on the part of the society to equip institutions well and squarely look after the needs of the pupils and teachers are the essential foundations of good education and sources of excellence. Supporting and strengthening the really creative and talented will result in the upholding of equality as well as quality in education. According to Kothari Commission, one of the objectives of education is development of aesthetic perception and creativity through participation in artistic activities and observation of nature.

The traditional teachers tend to be conformist. They lay excessive emphasis on the observation of the conventional norms. With the time the attitude of teacher has changed. Now to be an effective teacher, he/she should be creative, who will be democratic in approach. Torrance (1973) views that the creative teacher is an accepting tolerant and humanist who will allow the students to develop to their maximum. Such a teacher respects the originality of children by giving them credit for initiated learning and thinking and by allowing them to learn through creative problem solving

activities.

Need and significance of the study:-

The creative teacher develops a sense of reality about the potentiality of the child, and therefore, assumes that the nature and the kind of mental chemistry of a pupil can never be exactly known to teacher; though he realizes the enormous capacity of the child to think and feel creativity. The creative teacher has to realize that every child possesses a creative brain which functions better than a computer on the principles of cybernetics in thinking. So this creates a new responsibility on the part of teachers to cultivate, nurture and nourish and to channelize the creative talent in nation. It is desired to have creative potential in teachers to help them shape creativity of his/her learners. Teacher education is put to develop the cluster of characteristics, values, adherence, and should help in promoting creativity. Teachers cannot develop the creative thinking abilities of their students if their own creative thinking abilities are undiscovered or suppressed. Creative teachers are always willing to experiment but they recognize the need to learn from experience. Teacher trainees will be the future teachers of our country and very little studies were done on the creativity of them. Therefore, study on the creativity of D.El.Ed students was done. This will help to know the creativity of teacher trainees of secondary level taking into considerations of gender, residence, locality, parent's occupation.

Title of the study:-

Statement of the problem is entitled as Impact of creative thinking ability on the Academic Achievement of D.El.Ed Students.

Objectives of the study:-

The following objectives have been formulated for the purpose of the study:

- To find out whether there is any significant difference between male and female
- D.El.Ed students in their fluency, flexibility, originality, elaboration and creative thinking ability.
- To find out whether there is any significant difference between hostel and day scholar D.El.Ed students in their fluency, flexibility, originality, elaboration and creative thinking ability.
- To find out whether there is any significant difference between urban and rural D.El.Ed students in their fluency, flexibility, originality, elaboration and creative thinking ability.
- To find out whether there is any significant association between parents' occupation of D.El.Ed students in their fluency, flexibility, originality, elaboration and creative thinking ability.
- Hypothesis:-
- There is no significant difference between male and female

D.El.Ed students in their fluency, flexibility, originality, elaboration and creative thinking ability.

- There is no significant difference between hostel and day Scholar D.El.Ed students in their fluency, flexibility, originality, elaboration and creative thinking ability.
- There is no significant difference between urban and rural D.El.Ed students in their fluency, flexibility, originality, elaboration and creative thinking ability.
- There is no significant association between parent's occupation of D.El.Ed students in their fluency, flexibility, originality, elaboration and creative thinking ability.

Methodology:-

The investigator adopted survey method. This method of investigation which attempts to describe and interpret what exists at present in the form of conditions practices, process, trends, effects, beliefs etc. The survey method gathers data from relatively large number of case at a particular time.

Sample:-

The investigator had used stratified random sampling technique for selecting the sample. The investigator randomly selected the Teacher trainees from three districts are Tirunelveli, Tuticorin and

kanyakumari. The selection was done on the basis of the type of institution and location of the institution. From these institutions, 739 teacher trainees were randomly selected on the basis of the criteria.

Research Tools:-

Creative thinking ability tool was designed by Rasel. Academic Achievement tool was developed by the researcher in the year 2015, with the help of source book.

Procedures:-

The above inventory was administered to subjects. Each item was scored with the help of scoring key. The data thus collected are tabulated to arrive at meaningful inference.

Statistical Techniques:-

The tabulation and analysis of data done by using appropriate statistical techniques such as Mean, Standard deviation and 't' test.

Analysis and interpretation of data:-

To find out the meaningful interpretation of the raw scores the data were analyzed, the results of the study are presented in the following tables S* = Significant at 5% level

TABLE – 1 MEAN AND STANDARD DEVIATION OF THE CREATIVE THINKING ABILITY AMONG MALE AND FEMALE D.EL.ED STUDENTS AND THEIR CALCULATED 'T' VALUE

Creative thinking ability	Gender	N	Mean	SD	df	Calculated 't' value	p-value	Remarks
Fluency	Male	40	16.53	1.768	737	0.800	0.424	NS
	Female	699	16.74	1.609				
Flexibility	Male	40	11.25	0.927	737	2.266	0.024	S**
	Female	699	11.55	0.806				
Originality	Male	40	5.73	0.933	737	1.539	0.124	NS
	Female	699	6.02	1.197				
Elaboration	Male	40	5.60	0.632	737	0.789	0.430	NS
	Female	699	5.51	0.723				
Creative thinking ability	Male	40	39.10	2.458	737	1.519	0.129	NS
	Female	699	39.81	2.914				

S* = Significant at 5% level

From the table 1, it is revealed that the calculated p value for the flexibility dimension of Creative thinking ability is less than 0.05 and so it is significant at 5% level. It means that there is significant difference in the flexibility dimension of Creative thinking ability of D.El.Ed students due to their gender. Hence the formulated null hypothesis, "there is no significant difference in the Creative thinking ability of D.El.Ed students due to their gender" is rejected with regards to the flexibility dimension of Creative thinking ability.

The calculated p value for the dimensions of Creative thinking ability like fluency, originality, elaboration and Creative thinking ability as a whole are more than 0.05 and so are not significant at 5% level. It means that there is no significant difference in the Creative thinking ability of D.El.Ed students due to their gender. Hence the formulated null hypothesis, "there is no significant difference in the Creative thinking ability of D.El.Ed students due to their gender" is accepted with regards to the fluency, originality, elaboration and dimensions of Creative thinking ability and Creative thinking ability as a whole. NS = Non significant at 5% level

TABLE – 2 MEAN AND STANDARD DEVIATION OF THE CREATIVE THINKING ABILITY AMONG HOSTEL AND DAY SCHOLAR D.EL.ED STUDENTS AND THEIR CALCULATED 'T' VALUES

Creative thinking ability	Residence	N	Mean	SD	df	Calculated 't' value	p-value	Remarks
Fluency	Hostel	197	16.55	1.707	737	1.784	0.075	NS
	Day scholar	542	16.79	1.580				
Flexibility	Hostel	197	11.45	0.933	737	1.495	0.136	NS
	Day scholar	542	11.56	0.766				
Originality	Hostel	197	6.00	1.221	737	0.075	0.940	NS
	Day scholar	542	6.01	1.174				
Flexibility	Hostel	197	5.49	0.740	737	0.467	0.641	NS
	Day scholar	542	5.52	0.711				
Creative thinking ability	Hostel	197	39.49	3.090	737	1.604	0.109	NS
	Day scholar	542	39.88	2.815				

From the table 2, it is known that the calculated p value for the dimensions of Creative thinking ability like fluency, flexibility, originality, elaboration and Creative thinking ability whole are more than 0.05 and so are not significant at 5% level. Hence the formulated null hypothesis, "there is no significant difference in the Creative thinking ability of D.El.Ed students with reference to their

residence" is accepted. It means that there is no significant difference in the dimensions of Creative thinking ability like fluency, flexibility, originality, elaboration and Creative thinking ability as a whole of D.El.Ed students with reference to their residence.

TABLE - 3 MEAN AND STANDARD DEVIATION OF THE CREATIVE THINKING ABILITY AMONG URBAN AND RURAL D.EL.ED STUDENTS AND THEIR CALCULATED 'T' VALUES

Creative thinking ability	Locality of residence	N	Mean	SD	df	Calculated 't' value	p-value	Remarks
Fluency	Urban	182	16.81	1.668	737	0.857	0.392	NS
	Rural	557	16.69	1.600				
Flexibility	Urban	182	11.52	0.819	737	0.213	0.831	NS
	Rural	557	11.54	0.814				
Originality	Urban	182	6.05	1.232	737	0.577	0.564	NS
	Rural	557	5.99	1.171				
Elaboration	Urban	182	5.60	0.734	737	1.985	0.048	S*
	Rural	557	5.48	0.711				
Creative thinking ability	Urban	182	39.99	3.164	737	1.078	0.282	NS
	Rural	557	39.71	2.800				

S* = Significant at 5% level.

From the table 3, it is known that the calculated p value for the dimension of Creative thinking ability like elaboration is less than 0.05 at 5% level of significance, hence the formulated null hypothesis, "there is no significant difference in the Creative thinking ability of D.El.Ed students due to their locality of residence" is rejected. The calculated p value for the dimensions of Creative thinking ability like fluency, flexibility, originality and

Creative thinking ability as a whole are more than 0.05 and so are not significant at 5% level. Hence the formulated null hypothesis, "there is no significant difference in the creative thinking ability of D.El.Ed students with reference to their due to their locality of residence" is accepted. It means that there is no significant difference in the dimensions of Creative thinking ability like fluency, flexibility, originality and Creative thinking ability as a whole of D.El.Ed students with reference to their locality of residence. NS = Not significant at 5% level.

TABLE - 4 CREATIVE THINKING ABILITY OF THE D.EL.ED STUDENTS WITH REGARD TO THEIR PARENT'S OCCUPATION AND THEIR CALCULATED 'X²' VALUES

Creative thinking ability	Parents occupation	Calculated X ² value	df	p-value	Remarks
Fluency	Unemployed	3.661	6	0.722	NS
	Daily wages				
	Private				
	Government				
Flexibility	Unemployed	1.278		0.734	NS
	Daily wages				
	Private				
	Government				
Originality	Unemployed	4.034		0.672	NS
	Daily wages				
	Private				
	Government				
Elaboration	Unemployed	2.226		0.898	NS
	Daily wages				
	Private				
	Government				
Creative thinking ability	Unemployed	2.653		0.851	NS
	Daily wages				
	Private				
	Government				

The Table 5 reveals that the calculated p value for the Creative thinking ability like fluency, flexibility, originality, elaboration and Creative thinking ability as a whole are more than 0.05 and so are not significant at 5% level. Hence the formulated hypothesis "there is no significant association in the Creative thinking ability of D.El.Ed students with regard to their parent's occupation" is accepted. Further it is observed that, there is no association between the Creative thinking ability of D.El.Ed students with regard to their parent's occupation.

Findings and Interpretations:-

There is significant difference in the dimension of creative thinking ability like flexibility of male and female D.El.Ed students and no significant difference in fluency, originality, elaboration and creative thinking ability as a whole of male and female D.El.Ed students. Females are better than the male D.El.Ed students in their flexibility of creative thinking ability. The mean scores of male teacher trainees (mean = 11.25) and female (mean = 11.55) D.El.Ed students in their flexibility. Girls in this investigation scored better than boys on flexibility components of creative thinking ability, may be because

of age group (17 to 19 years) girls would have attained maturity earlier than boys and the effect of this spurt in maturity might have been reflected in their better performance. Girls grow up faster than boys and the difference can be seen even before birth. The parents should encourage originality and general creativity by offering educational resources to their daughters.

There is no significant difference between hostellers and day scholars of D.El.Ed in the dimensions of Creative thinking ability like fluency, flexibility, originality, elaboration and Creative thinking ability as a whole with reference to their residence. This is largely due to the fact that the creative thinking ability for both day scholars and hostellers remains the same. This finding confirms the finding of Kolappan (2011) but the finding is contradictory to the findings of Muthuchamy (2012) and Mohamed (2012).

There is significant difference in elaboration of creative thinking ability of the rural and urban D.El.Ed students and no significant difference in the dimensions of Creative thinking ability like fluency, flexibility, originality and creative thinking ability as a whole of

D.El.Ed students with reference to their residence. The mean scores of urban (mean = 5.60) and rural (mean = 5.48) D.El.Ed students in their elaboration. Urban D.El.Ed students are better than the rural D.El.Ed students in their elaboration of creative thinking ability. It is found that level of creativity of the D.El.Ed students are indifferent of area or locality of the D.El.Ed students that is supported by the findings of Dineshan, E. and Rajan, R.(2012) and Janardhan Reddy et al. (2015), who reported that urban students were possess high level of creativity than the rural students in their creativity.

Schools are much more than settings for producing specific learning outcomes. A healthy school climate is much more than an environment conducive for teaching academic content. It is also a learning environment for teaching personal and social development, successful career strategies, and healthy emotional development. Creative thinking skills and competencies are keys to creating and maintaining a healthy and productive school climate.

There is no significant association in the Creative thinking ability of D.El.Ed students with regard to their parent's occupation is accepted with regards to the fluency, flexibility, originality, elaboration and Creative thinking ability as a whole. Further it is observed that, there is no association between the Creative thinking ability of D.El.Ed students with regard to their parent's occupation. This may be due to the fact that parents with an occupation do not influence the Creative thinking ability in any way.

Thus, the findings of the study about the difference of creative thinking ability in relation to different background variables, it can be concluded that area of the study, gender, locality, were the factors that have an impact on creative thinking ability of the D.El.Ed students. However, type of institution and parents' occupation do not show any significant difference in the level of creative thinking ability of the D.El.Ed students. The findings of the current study confirmed that the teachers should prepare educational activities from curriculum and achieve it within the classroom to develop imaginative abilities and sense of humour in students; also the creative aspects of students in Teacher training institutes need to be developed. Therefore, teachers may conduct some activities and add several teaching strategies to enhance and develop the creative characteristics among their students in Teacher training institutes.

References:-

1. Dasgupta & Subrata. (1994). *Creativity in Invention and Design: Computational and Cognitive Explorations of Technological Originality*, Cambridge, Cambridge University Press, New York.
2. Dineshan E. and Remmiya Rajan P. (2012) poetic creativity in English among higher secondary school students. *GCTE Journal of Research and Extension in Education* Vol. 7 (2) P. 110-115. ISSN No. 0975 – 5144.
3. Janardhan Reddy, K. & Viswanatha Reddy. (2015). Impact of Demographic Variables on Non Verbal Creativity among High School Students, *The International Journal of Indian Psychology* ISSN 2348-5396 (e) | ISSN: 2349-3429 (p) Volume 2, Issue 4, DIP: B00384V2I42015
4. Kavita Mittal. (2013). conducted a study on A Study of Creative Talent of Teacher-Trainees In Relation To Anxiety, Mittal, K./ *Educatonia Confab* Vol. 2, No. 5, May 2013 ISSN: 2320-009X
5. Kolappan (2011). Factors relating to the academic achievement and home environment in economics of the higher secondary students. *International Journal of Management Research and Development*, 1(2).
6. Muhammad Nadeem Anwar, Muhammad Anes, Asma Khizar, Muhammad Naseer, Gulam Muhammad (2012) "Relationship of Creative Thinking with the Academic Achievements of Secondary School Students" Pakistan. *International Interdisciplinary Journal of Education – April 2012, Volume 1, Issue 3.*
7. Muthuchamy, I., & Joseph, M.U. (2012). Family environment on academic achievement of B.Ed students. *New Frontiers in Education*.
8. Rajput, J.S. (1994). *Universalisation of Elementary Education*: Vikas publishing House PVT, LTD, Printed at Kay Kay Printers, Delhi- 110007.
9. Sharma, R.A. (2007). *Essentials of Scientific Behavioural Research*: Lall Book Depot, Meerut-250 001.
10. Suresh Chandra & Sharma, M.K. (2013). *Research methodology*: Narosa Publishing House, Chennai