

Effects of Computer Applications in Creative Activities

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Abstract - To study the effectiveness of web based educational programmes in creative writing through life oriented inquiry curriculum in the context of teaching and learning of English. An experimental method was found to be true most appropriate method for testing the spelt out hypothesis in the study. Control Group (CG) and Experimental Group (EG) will form assigning fourteen students at random for each group. The scores of the students of control and experimental groups will be tabulated and analyzed using appropriate statistical techniques. Based on the findings of the study, it is concluded that web-based creative writing techniques is effective in bringing about a holistic development of the linguistic skills of the students.

I.INTRODUCTION

The traditional method of teaching and learning are facing complexities and diversities of thoughts and conflicts for proper adjustment. A fundamental approach to the curriculum in which students explore the various world in which they live, including their neighborhood and social group as well as the text world of literature which contains many practical ideas to stimulate and original long-term planning (Beach & Myers, 2001). The modern world used the technology as an effective tool for the development of human knowledge and understanding. Today IT is exploding in its growth that today's mere examination oriented teaching is never going to produce students of the caliber who would take jobs which will be complex, skill oriented and highly creative in the coming years. Learn though creative skills and computer technology could soon replace the present trend. However the conventional methods cannot be done away with immediately so, in order to create link between subjects, a project was introduced to students to enable them to integrate various subjects, which they have so far learnt as separate compartments. Human advancement comes through original thought and invention but the Individual have ideas but there reluctant to express them (Bower, 1971). To encourage original thought and invention is the great role of education. The modern school awakens and develops whatever is unique and distinctive in every individual, irrespective of psychological, physical or social differences. Difference of uniqueness is being cherished rather than being lamented or complained. Emphasis is

laid on difference rather than on sameness, more on originality and inventiveness than on something old. A way of excellence is encouraged in all endeavors, whether of intellectual, aesthetic or moral import. A key to greatness of effort and of spirit becomes creative education. The children are not made to fit into a set educational mould now. There is much individual instruction, individual initiative and self-education in the new school. Creativity is fostered through the organization of the entire school programme in general and through creative expression in the arts in particular. Creativity as a process of becoming sensitive to problems, deficiencies, gaps in knowledge, missing elements, disharmonies, identifying the difficulty, searching for solutions, making guesses or formulating hypotheses and possibly modifying and re-testing them and finally communicating the results (Torrance, 1966). Children are helped to set their own goals, plan their own activities, and work in groups in which opinion can be shared. Creativity exists in the entire fabric of the new school. Children have liberty to experiment, opportunity to find new ways of handling material, and freedom to express their own unique personalities. Experience is enriched by expression; the expressive phase of activity gives meaning to experience. Creativity serves to quicken perception, strengthen emotion and unify interest. Imagination is allowed to have a full play. Pupils are encouraged to find relationship among facts discover the similarities and difference among things in the universe, test hypothesis already formulated and solve problems keeping alive the spirit of adventure in learning. Many schools encourage creative expressions thoughts the arts – creative writing, painting, music, crafts rhythmic activity and dramatics. A wide variety of expressive materials are made readily available and a warm friendly atmosphere is provided so that creative expression may flow the best. The observation that technology helps students take an active role in their learning and construction of knowledge was reinforced in the study (Garcia, 1999). The use of animation software that would build help students' skills in learning both science and language simultaneously, and attempted to show how the design, creation and revision of animated models can help a child tells a science story. Technology plays an important role in making connections for understanding (Crandall, 2002). All of

us are born with creative potential and if given proper environment, this potential can be recognized, nurtured and measured (Rasool, 1977). Hence the primary objectives of the study are 1. Encourage children to make, to create and to demonstrate anything everything that satisfies their heart and mind 2. Provide ample opportunity for creative self-expression 3. Discover one's self by language arts and handicrafts 3. Develop future artists, poets, composers and all kinds of creative – selves coming into their own 4. Cultivate the innate capacity that a child is endowed with to express himself 5. Place the child in a conducive atmosphere to express oneself in every aspect 6. Enable children to express thought integrated language skills 7. Give an opportunity to the child to express in his own capacity, whatever the route, the medium or the material is 8. Enable the children to set their own standards 9 Emphasis the creative capacities of the children and the finished work, skill or technical perfection. All these unspecialized practical activities find their place in creative writing.

II. THE STUDY

The hypotheses were set for the study as follows: 1. There is no significant difference between the means of the scores of the control groups and the experimental groups in exhibiting their language skills through the use of computer technology 2. There is no significant difference between the means of the scores of the control group I, II and III and the experimental groups, I, II and III in the impact of simulation on the imagination of the students' creativity through the use of computer technology 3. There is no significant difference between the means of the scores of the control groups I, II and III and the Experimental Group I, II and III in exhibiting their writing skills in giving a write up about the Island, Letter Writing, News Reporting and Story Writing through the use of Computer Technology 4. There is no significant difference between the means of the scores of the control groups I, II and III and the Experimental Group I, II and III in exhibiting their creative skills in

creating the Island, Advertisements and Designing the Front page of the Newspaper through the use of Computer Technology. The Random Replication Design has been adopted by the investigator to highlight the effectiveness of integration of subjects, Language Skills and Computer Technology to develop Creativity in students of the adolescent age group in the experimentation. Adopting simulation method, an integrated skills activity on creative writing was given to both the Experimental groups and the Control groups. The 3 control groups were allowed to do the activity with paper-based materials whereas the 3 Experimental Groups did the same project work with the help of simple basic knowledge of Computer. The students were able to create a new land of their own with necessary ideas obtained from integrating all the subjects like History, GeoFigurey, Science, Trade & Commerce, Economics and Language which they have already learnt in separate compartments. The investigator has particularly chosen the Random Replication Design rather than the other design in order to repeatedly test one skill at a time and also comparing among the three experimental group and the three control groups and between the two major groups as well.

III. RESULTS AND FINDINGS

The identity among the experimental groups a detailed discussion has been made to test the hypothesis. This study draws a conclusion based on the findings. From the first hypothesis, there is no significant difference between the means of the scores of the control groups and the experimental group in exhibiting their language skills through the use of computer technology. To test the null hypothesis 't' test were attempted between the means of the experimental groups and the control groups in realizing the instructional objectives in creative writing to improve the language skills through computer technology. The mean and S.D. of the scores were already computed. The results are given in Figure. 1.

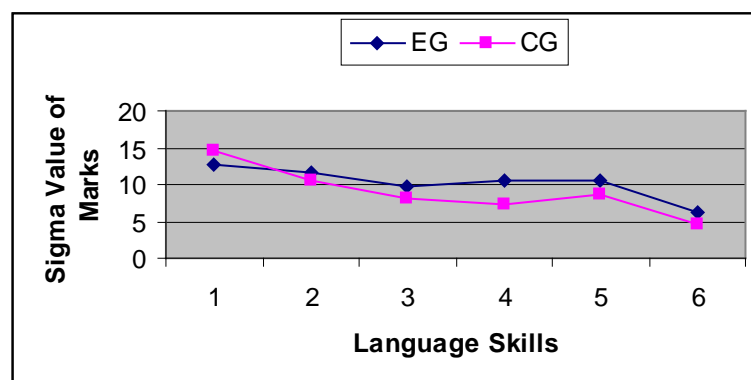


Fig.1 Relative Effectiveness between the Means of the Scores of the Control Groups and the Experimental Groups in exhibiting their Language Skills through the use of Computer Technology.

From the Figure 1, it is found that there is significant difference at 0.01 level between the means of the scores of the Control Groups and the Experimental Groups on the whole in the creativity of the students to acquire language skills. It is also found that the mean value of the Experimental Group is higher than that of the Control Groups which can be because of the use of Computer Technology in the experimentation to enhance creativity among students. Thereby, it is clear that on the whole all the experimental groups have performed considerable better than of all the control groups in acquiring the Language skills. Hence, the null hypothesis is rejected and the alternative hypothesis is accepted. It is concluded that the computer technology that was used in the projects was effective in realizing

the instructional objective writing the creative writing to improve the language skills.

From the Second Hypothesis, there is no significant difference between the means of the scores of the control groups I, II, and III and the Experimental Groups I, II, and III in the impact of simulation on the imagination of the students' Creativity through the use of Computer Technology. To test the null hypothesis 't' test were attempted between the means of the Experimental Groups and the Control Group in bringing out the in the impact of simulation on the imagination of the students' creativity through the use of computer technology. The mean and S.D. of the scores were already computed. The result are given in Figure: 2

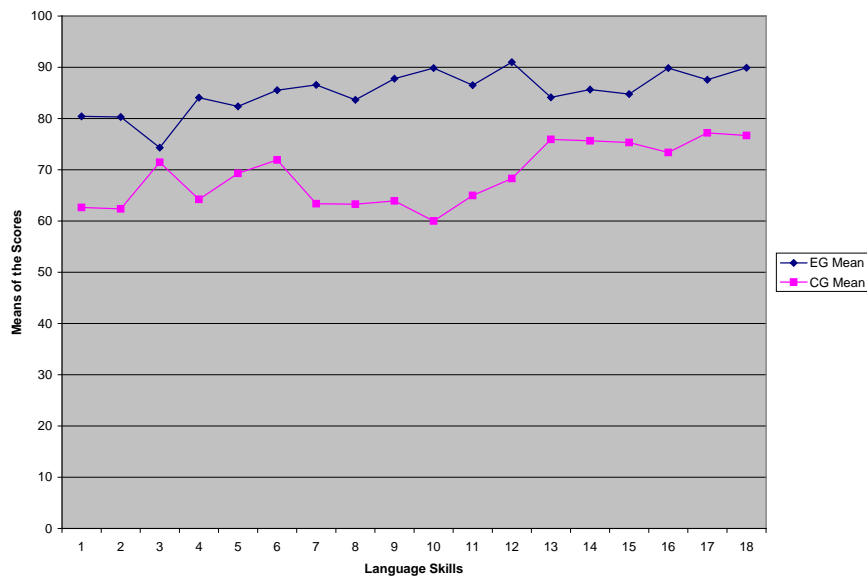


Fig.2 Comparison of the Effectiveness between the means of the Scores of the Control Groups I, II and III and the experimental groups I, II and III in the impact of simulation on the imagination of the students' creativity through the use of Computer Technology.

From the Figure 2, it is found that there is significant difference at 0.01 level between the means of the scores of the Control Groups I, II and III and the Experimental Groups I, II and III in the Creativity of the students. It is also found that the mean value of the Experimental Groups, I, II and III is higher than that of the Control Groups which can be because of the impact of Simulation on the imagination of the students' Creativity through the use of Computer Technology in the experimentation but, in certain tasks, like Creating the Island and Debate, the difference is not significant between the Experimental Group III and the Control Group III alone which may be because of the interest created even among the Control Group III towards the project work which is clear from the means which are higher than the means of the scores of the other tasks. There is also a 0.05 difference only in the Letter Writing tasks done by Experimental and Control Groups I, III compared to Group II which is significant at .01 level

where pupils of the Experimental Group II were more thrilled than other groups at creating E-mails.

Creation of the Island using the Computer Technology, the students of the experimental Groups were able to create a simulation of an island. A miniature world of their own (their Utopia, an imaginary Island) was created with colorful display of pictures using Microsoft Paint Brush and Clip Art using cut / copy / paste and flip rotate options and write up of the Island using the technology is surprisingly all pupils showed extraordinary interests in making use of Microsoft word / star writer where they were amused giving a write up of an island making use of a variety of options like Fonts / colour / cut and paste / alignment / grammar / spell check / inserting pictures / borders / etc. There was no boredom or monotony in writing.

From the third hypothesis, there is no significant difference between the means of the scores of the control

groups I, II and III and the Experimental Group I, II and III in exhibiting their writing skills in giving a write up about the Island, Letter Writing, News Reporting and Story Writing through the use of Computer Technology. To test the null hypothesis 't' test were attempted between the means of the Experimental Groups and the

Control Groups III in exhibiting their writing skills in giving a Write – up about the Island, Letter Writing, News-Reporting and Story Writing through the use of Computer Technology. The mean and S.D. of the scores were already computed. The results are given in Figure 4.

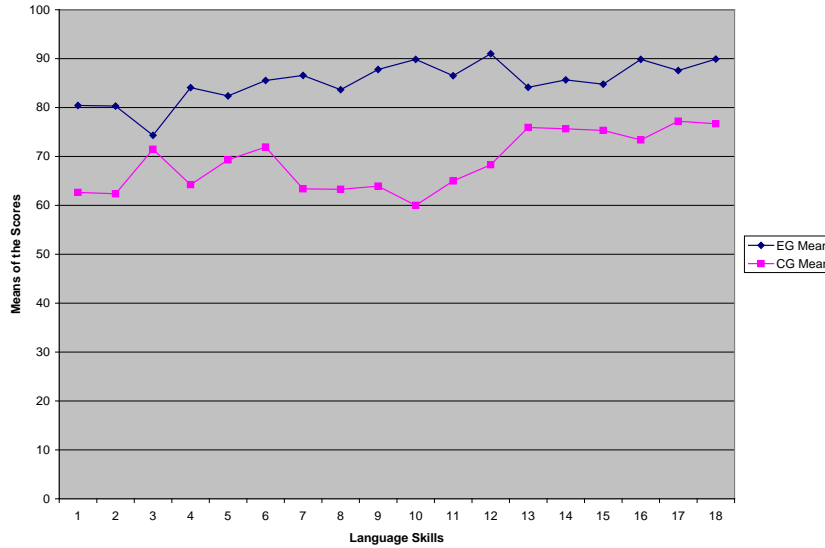


Fig.3 Comparison of the Effectiveness between the Means of the Scores of the Control Groups I, II and III and the Experimental Groups I, II and III in the impact of Simulation on the imagination of the Students' Creativity through the use of Computer Technology.

Using Computer Technology, the students of the Experimental Groups were able to create a simulation of an island. A miniature world of their own (their Utopia,

an imaginary island) was created with a colourful display of pictures using Microsoft Paint Brush and Clip Art using cut / copy / paste and flip rotate options.

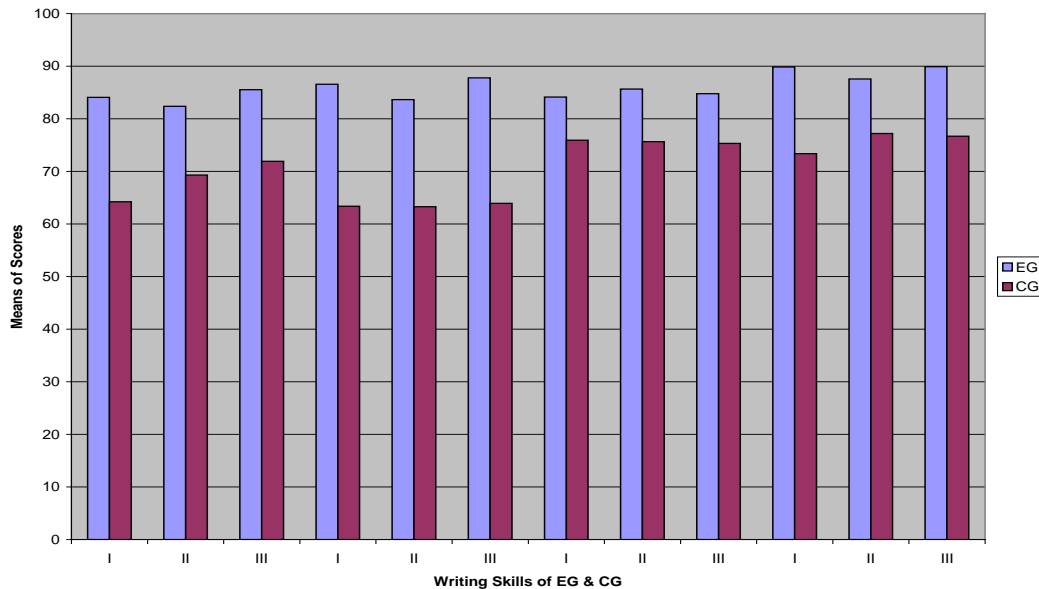


Fig.4 Comparison of the Effectiveness between the Means of the Scores of the Control Groups I, II and III and the Experimental Groups I, II and III in exhibiting their Writing Skills in giving a write-up about the Island, Letter Writing, News-Reporting and story writing through the use of Computer Technology.

From the Figure 4, it is found that there is significant difference at 0.01 levels between the means of the scores of the Control Group I, II and III and the Experimental Groups I, II, and III in all the Writing Skills except in Letter Writing. There is only a 0.05 difference in the Letter Writing task done by Experimental and Control I & III compared to Group II which is significant at 0.01 levels because pupils of the Experimental Group III were more thrilled than other groups at creating E-mails. It is also found that the mean value of the Experimental Groups, I, II and III is higher than that of the Control Groups in all other tasks, which can be because of the impact of Computer Technology in the experimentation in exhibiting their writing skills. The same tasks were carried out by the Control Groups on paper – based materials without the aid of Computer Technology. Hence the null hypothesis is rejected and the alternative hypothesis is accepted. It is concluded that Computer Technology used in the projects was effective in exhibiting their writing skills in giving a Write-up about

the Island with the help of Microsoft Word/Star Writer, Letter Writing with the help of E-mails, News-Reporting with the help of Microsoft Publisher and Story Writing with the help of Power Point / Star Impress. This is clearly seen in Figure 4.

From the hypothesis four there is no significant difference between the means of the scores of the control groups I, II and III and the Experimental Group I, II and III in exhibiting their creative skills in creating the Island, Advertisements and Designing the Front page of the Newspaper through the use of Computer Technology. To test the null hypothesis ‘t’ test were attempted between the means of the Experimental Groups and the Control Groups III in exhibiting their creative skills in creating the Island, Advertisements and Designing the Front – Page of the Newspaper through the use of Computer Technology. The mean and S.D. of the scores were already computed. The results are given in Figure 5.

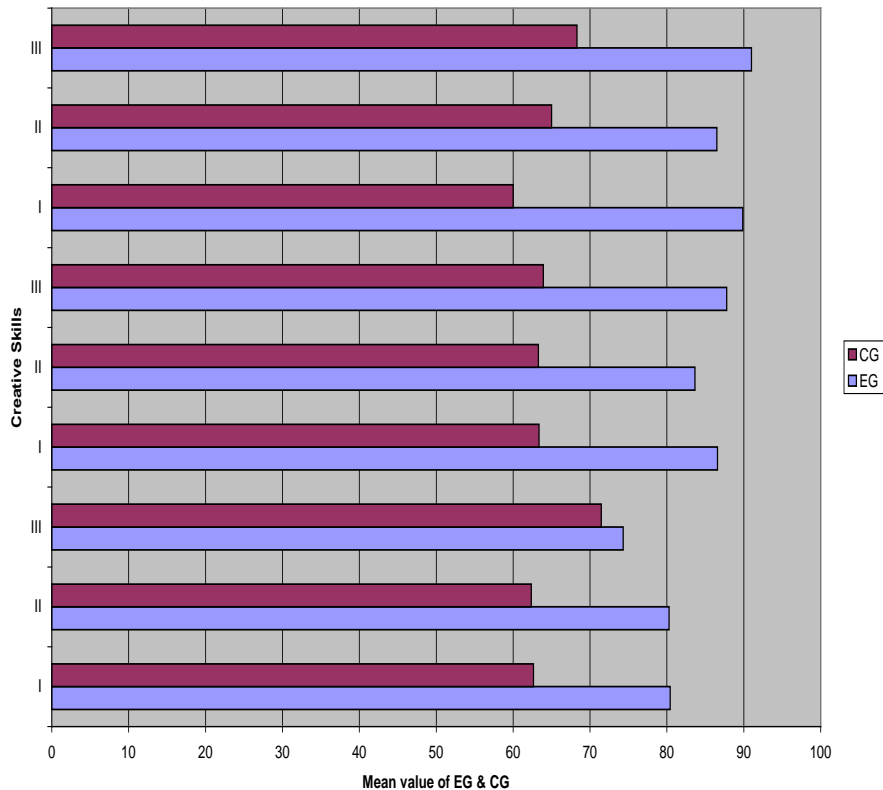


Fig. 5 Comparison of the Effectiveness between the Means of the Scores of the Control Groups, I, II and III and the Experimental Groups I, II and III in Exhibiting their Creative Skills in Creating the Island, advertisements and designing the Front-Page of the Newspaper through the use of Computer Technology.

From Figure 5, it is found that there is significant difference at 0.01 level between the means of the scores of the Control Groups I, II, and III and the Experimental Groups I, II and III in all the tasks on creative skills except in the Creation of the Island, the difference is not significant between the Experimental Group III and

Control Group III alone which may be because of the interest created even among the Control Group towards the project work which is clear from the means which are higher than the means of the scores of the other tasks. It is also found that the mean value of the Experimental Group I, II and III on the whole is higher

than that of the Control Groups, which can be because of the impact of Computer Technology in the experimentation in exhibiting their creative skills.

Creation of the Island using Computer Technology the students of the experimental Groups were able to create a simulation of an island. A miniature world of their own (their Utopia, an imaginary island) was created with a colourful display of pictures using Microsoft Paint Brush and Clip Art using cut / copy / paste and flip rotate options.

IV. CONCLUSION

Creativity forms the basis of all skills and hence, if it were incorporated with technology then there would appear a better chance of self – expression. To go with the growing world, one has to keep pace with the rapid changes that are taking place in the field of technology. The power of technology is turned into teaching tools that will captivate students, motivate them and ultimately urge them towards greater learning. Students were found confident, creative and genuine in their

expression after the project and learnt to relate all what they have been studying with a better readiness to learn something new.

REFERENCES

- [1] Beach, R and Myers, J, (2001), “Inquiry – Based English Instruction: Engaging Students in Life and Literature”, New York: Teachers College Press, 2001.
- [2] Bowers, K.S. (1971), “Sex and Susceptibility and Moderator Variables in the Relationship of Creativity and Hypnotic Suggestibility”, *Journal of Abnormal Psychology*, 78(1), 93 – 100.
- [3] Torrance, E.P. (1966), “Torrance of Tests of Creative Thinking” : Norms technical manual Princeton NJ: Personal Press.
- [4] Garcia, C.E., (1999), “Using Animation Software to Assist Second Language Learners in Science Learning”, Unpublished doctoral dissertation, University of Colorado, Boulder.
- [5] Crandall, J., Jaramillo, A., Olsen, L and Peyton, J.K. (2002), “Using Cognitive Strategies to Develop English Language and Literacy”, ERIC Clearinghouse on Language and Linguistics.
- [6] Rasool, G.(1977), “A study of Divergent Thinking of School – Going Children”. *Creativity Newsletter*,