

Effectiveness of Participatory Learning Program on Communication Skill of Secondary School Students

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Abstract:

Participation actively engages students with the subject matter, pushes them to create concepts and ideas, forces them to show evidences for their claims. It makes students work harder. Students who regularly participate in class are constantly involved with the material and are more likely to remember a greater portion of information. Active classroom participation improves critical and higher-level thinking skills. Participatory learning strategies are based on experiential learning that lets young people feel, think, and act out of their comfort zone in order to challenge stereotypes and become actively engaged in pursuing their personal growth whilst developing key life skills. Participatory learning encourages learning by doing, using open questioning, small groups, peer teaching, concrete materials, and the like The present investigation was a quasi- experimental approach with pre-test post-test non-equivalent comparison group design. The sample comprised of 60 secondary school students studying in standard IX. Participatory learning program and Communication Skill inventory for secondary school students were the major tools used for the study. Data obtained were analyzed by using ANOVA and ANCOVA. The results showed there is significant difference in the means of experimental and control groups with respect to communication skill. The F_y and F_{yx} values for Communication Skill were significant at 0.05 level. The significant values indicated that the experimental and control groups differ significantly in the post- test scores with respect to Communication Skill. This clearly proved that participatory learning program was more effective on Communication skill of secondary school students.

Keywords —Participatory Learning Program, Communication Skill

INTRODUCTION

Participatory Learning program is a well-planned group of activities which are collective, coordinated with each other and specially designed for a specific purpose of students' participation. Participatory method is very important in the process of teaching and learning in this era because it helps in discovering different talents of students, foster life skills and enables them to be more creative and confident (NEP, 2020 p12). The process of participation fosters mutual learning.

Participatory Learning helps students learn subject matter, acquire skills and behavior through active involvement of the learner in the learning process as possible. W. Boonmun (2007) expressed the idea that participatory learning is a kind of teaching method, according to which learning activities should have been organized by teachers and learners to create knowledge and achieve the goal of teaching plans and curriculum. Participatory learning implies attention should be paid to the interaction between teachers and students in the

learning process. Teachers provide learning opportunities, atmosphere, environment, and knowledge sources to facilitate learning (Terapinyo A.2004). Kim, Simon; Parks, b. Sue; and Beckerman, Marvin (1996) conducted a study on *Effects of participatory learning programs in middle and high school civic education*. The study revealed Participatory learning program in school civic education increased student awareness and helped to improve communication skills among students through active participation in community service. Ajitoni, et al., (2008) did a study on *Effect of Full and Quasi Participatory Learning Strategies on Nigerian Senior Secondary Students' Environmental Knowledge; Implication for Classroom Practice*. Results of the study revealed that Participatory learning strategies has a potential for effective communication of environmental education message in the classroom. Effective communication means that we are able to express ourselves, both verbally and non- verbally, in ways that are appropriate to cultures and situations. This means being able to express opinions and desires and also needs and fears.

Objective of the Study

The objective of the present study is To test the effectiveness of Participatory Learning Program on Communication Skill of Secondary School Students

Hypothesis of the Study

Participatory Learning Program is effective in enhancing Communication Skill of Secondary School Students

Methodology in Brief

The current study compared the effectiveness of Participatory Learning Program and prevailing activity oriented mode on Communication Skill of Secondary School students, hence used an experimental approach. The experimental group is exposed to the influence of the factor under consideration; the control group is not. Observations are made to determine what difference appears or what change or modifications

occurs in the experimental as contrasted with the control group (Best & Kahn, 2011).

Design of the Study

The present study tests the enhancement of Communication Skill scores of the treatment group and control groups. For the purpose of the present study, the pretest - posttest Non-equivalent Groups Design (specified by Best and Kahn 2007) was adopted.

Sample

A random sample of 60 Secondary School students of Kollam District, Kerala was categorized as one experimental group and the other control group. The experimental group was treated with Participatory Learning Program and control group followed prevailing activity oriented instruction

Major Tools Used in the Study

- A Communication Skill Inventory for Secondary School students
- Participatory Learning Program for Secondary School Students.

Statistical Techniques of the Study

- Inferential statistics like Independent sample t-test to determine the significance of the difference between the students' perception.
- Analysis of variance (ANOVA) to determine whether there is a significant difference between the experimental group and control group, Participatory Learning Program over prevailing activity oriented mode for the Communication Skill scores (Pre-test, Post-test and gain scores).
- Analysis of Covariance (ANCOVA) used to test the comparative effectiveness of the Participatory Learning Program over prevailing activity mode for Communication Skill post-test scores with pre-test scores as covariance.

Analysis and Interpretation

Analysis of the collected Data to find out the Effectiveness of Participatory Learning Program on Communication Skill of Secondary School Students

The t-value, using the test of significance of difference between means were calculated and tested for significance. The mean and standard deviation of the pre-test scores of Experimental and Control groups with respect to Communication Skill were subjected to test of significance of difference.

Table I. Results of Test of Significance of Difference between the mean Pretest scores of Experimental and Control group with respect to Communication Skill.

Variable	Group	Size	Mean	SD	T value	P
Communication Skill	Experimental	30	29.66	6.97	0.547	P>0.05
	Control	30	28.77	6.70		

From the table t, for df (1,58), t0.05 = 2.001

Table I shows that the t- value obtained for Communication Skill was not significant even at 0.05 level. Hence, there were no significant difference between the mean pre-test scores of Experimental and Control groups with respect to Communication Skill. This indicated that the pre-Experimental status of the students in the Experimental and Control groups were the same with respect to Communication Skill.

The mean and standard deviation of the post test scores of Experimental and Control group with respect to Communication Skill were subjected to test of significance of difference.

Table II. Results of Test of Significance of Difference between the mean Post test scores of Experimental and Control group with respect to Communication Skill.

Variable	Group	Size	Mean	SD	T value	P
Communication Skill	Experimental	30	41.90	2.85	4.34	P<0.05
	Control	30	36.80	5.76		

From the table t, for df (1,58), t0.05 = 2.001

Table II shows that the t- value obtained for Communication Skill was significant at 0.05 level. Hence, there were significant difference between the mean pre-test post test scores of Experimental group and Control Group with respect to Communication Skill. The mean post test score of Experimental group was significantly higher than that of the mean post-test scores of the Control group. This clearly proved that the Experimental treatment using Participatory Learning Program was effective on Communication Skill of secondary school students.

The mean gain scores of the Experimental and Control group with respect to Communication Skill were found out and compared for significance of the mean difference between the independent samples. The details of the analysis is given in the Table III.

Table III Results of Test of Significance of Difference in Mean Gain Scores of Experimental and Control Group with Respect to Communication Skill.

Variable	Group	Size	Mean	SD	T value	P
Communication Skill	Experimental	30	12.23	7.16	2.21	P<.05
	Control	30	8.10	7.30		

From the table t, for df (1,58), t0.05 = 2.001

Table III shows that the t – value obtained for Communication Skill was significant at 0.05 level. Hence there were significant differences in the mean gain scores of the Experimental and Control groups with respect to Communication Skill. The mean gain score of Experimental group was

significantly greater than the mean gain score of Control group with respect to Communication Skill. This clearly proved that Participatory Learning Program was more effective on Communication Skill of secondary school students.

By using single factor ANCOVA, the investigator studied the relative effectiveness of Participatory Learning Program and Activity Based Instruction on Communication Skill. Before proceeding to Analysis of Covariance (ANCOVA), the scores were subjected to Analysis of Variance (ANOVA). The summary of the results of ANOVA are given in the following Table IV Summary of Analysis of Variance (ANOVA) of Pre test (x) and Post test (y) scores in Experimental and Control groups with respect to Communication Skill

Table V. Summary of Analysis of Covariance (ANCOVA) of pre-test (x) and Post test (y) Scores in Experimental and Control Groups with Respect to Communication Skill

Variable	Source of Variation	df	SSx	SSy	MSx (Vx)	MSy (Vy)	Fy _x
Communication Skill	Between Groups	1	14.017	390.150	364.708	364.708	18.42
	Within Groups	58	2714.967	1199.505	1128.451	19.797	
	Total	59	2728.983	1589.655			

All Fy_x values were significant at 0.05 level. From the table of F, for df (1/57), F_{0.05} = 4.009

Table V. shows that the Fy_x value obtained for Communication Skill was greater than the table value and hence were significant at 0.05 level. The Fy_x value for the adjusted post test score showed that the final scores of the Experimental and Control groups differ significantly. The adjusted means for the post test scores of the students in the Experimental and Control groups were computed using correlation and the results are tabulated in the Table VI

Table VI. Adjusted Means for the post test scores of students in the Experimental and Control group with respect to Communication Skill

Variable	Groups	N	M _x	M _y	M _{xy}	SE _m	T	P
Communication Skill	Experimental	30	29.66	41.900	41.822	.813	6.08	p<0.05
	Control	30	28.77	36.800	36.878	.813		

All the t values were significant at 0.05 level. From the table of t, for df (1/57), t_{0.05} = 2.003

Variable	Source of variation	df	SSx	SSy	MSx (Vx)	MSy (Vy)	F _x	F _y
Communication Skill	Between Groups	1	14.017	390.150	14.017	390.150	.299	18.86
	Within Groups	58	2714.967	1199.505	46.810	20.861		
	Total	59	2728.983	1199.505				

From the table of F, for df (1/58), F_{0.05} = 4.006

Table IV shows the F_x value and F_y value obtained for Communication Skill. The F_x value was less than the table value and hence was not significant at 0.05 level. This indicated that there was no significant difference between pre-test scores of the Communication Skill of Secondary School Students in the Experimental and Control groups. The F_y value obtained was greater than the table value and hence was significant at 0.05 level. The significant F_y value indicated that the Experimental and Control groups differ significantly in the post test scores with respect to Communication Skill. For correcting the post test(y) scores for the difference in the pre-test(x) scores, the adjusted sum of squares and mean square variances for post test scores were computed and F-ratio was calculated. Hence ANCOVA was adopted and its summary is shown in Table V

Table VI shows that all the t-value obtained for Adjusted Means for the post test scores of students in the Experimental and Control groups with respect to Communication Skill were significant at 0.05 level. As the adjusted mean score of the Experimental group was significantly higher than that of the Control group, Communication Skill of the Experimental group was better than that of the Control group. Thus, it was concluded that Participatory Learning Program was more effective than Activity Based Instruction on Communication Skill of Secondary School Students.

Findings and Conclusions

The major findings that have emerged from the study are listed below

Effectiveness of Participatory Learning Program on Communication Skill of Secondary School Students

The t- value obtained for the means of pre- test scores of Communication Skill is 0.547 and is not significant even at 0.05 level. Hence, there were no significant difference between the mean pre-test scores of Experimental and Control groups with respect to Communication Skill. This indicated that the pre-Experimental status of the students in the Experimental and Control groups were the same with respect to Communication Skill. The t- value obtained for the means of post test scores of Communication Skill is 4.34 and is significant at 0.05 level. Hence, there were significant differences between the mean post test scores of Experimental and Control group with respect to Communication Skill. The mean post test score of Experimental group was significantly higher than that of the mean post-test score of the Control group. This clearly proved that the Experimental treatment using Participatory Learning Program was effective in enhancing Communication Skill of Secondary School Students. The t – value obtained for the mean gain score for the Communication Skill is 2.21 and the value was significant at 0.05 level. Hence there was significant difference in the mean gain scores of the Experimental and Control group with respect to Communication Skill. The mean gain score of Experimental group (12.23) was significantly greater than the mean gain score of Control group (8.10) with respect to the

Communication Skill. This clearly proved that Participatory Learning Program was more effective for enhancing Communication Skill of Secondary School Students.

From the analysis using ANOVA, the F_x value for Communication Skill is 0.299. Since it is less than the table value required, F_x value is not significant at 0.05 level of significance. This reveals that there is no significant difference between the pre test scores on Communication Skill of the students in Experimental and Control group. The F_y value for Communication Skill is 18.86 and the value is significant at 0.05 level. The significant F_y value indicated that the Experimental and Control groups differ significantly in the post test scores with respect to Communication Skill. Since the sample selected for the present study was intact classroom groups, it cannot be conclusively said that these groups differed significantly by merely comparing the post-test scores or gain scores of Experimental and Control group. So, when the post-test scores of the Experimental and Control group were compared using ANCOVA, the F_{yx} values for the Communication Skill was 18.42. The significant ratio shows that the mean post test scores of Communication Skill of Experimental and Control group differ significantly after they were adjusted for the difference in the pre-test scores.

The difference in the adjusted means for post-test scores of Communication Skill was tested for significance and the following result was obtained. The t-value obtained was 6.08 for Adjusted Means for the post test scores of students in the Experimental and Control groups with respect to Communication Skill which was significant at 0.05 level. This reveals that there is significant difference in the adjusted means scores on Communication Skill of Experimental and Control group.

This leads to the conclusion that there exists a significant difference in Communication Skill between Experimental and Control group. Participatory Learning Program is significantly effective on Effective Communication Skill of Secondary School Students.

Finding reveals that there were significant differences between the mean post test scores of

Experimental and Control group with respect to Communication Skill. The mean post test scores of Experimental group were significantly higher than that of the mean pre-test scores of the Control group. This clearly proved that the Experimental treatment using Participatory Learning Program was effective on Communication Skill of Secondary School Students. *Hence the hypothesis is substantiated.*

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