Research Paper

Emoting Through Navarasa: An Experimental Study

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ABSTRACT: *Present study efforts to enhance Emotional Intelligence of the children through expression of Navarasa. Four types of art forms namely- Dance, Drama, Singing and Drawing were used as a medium of expression. Sample of the study included 134 children from 5th to 7th standard. Sample was selected from a school having children from Lower Socio-Economic Class. Multi-stage sampling method was used. Ability Model of Emotional Intelligence was used in this study. Intervention program included 34 sessions. Separate sessions were conducted for Girls and Boys. Three standardized questionnaires were used to measure- Emotional Intelligence, Socio-Economic Status and General Intelligence of the children. Analysis was done using- Descriptive statistics, ANOVA, and Mixed designed ANOVA. Experimental groups scored significantly higher on Emotional Intelligence than the respective control groups of both Girls and Boys. Girls scored considerably higher than the Boys at post-testing. Emotional Intelligence found to be enhanced significantly in Experimental groups. The obtained interaction effect is discussed.*
KEYWORDS: *Emotional Intelligence, Navarasa, Socio-economic status, Gender, Intervention*

I. INTRODUCTION

Schools in India are using advance technology and innovative teaching methods for their students. They are taking tremendous efforts for the all-round development of their children. But at the same time increasing school problems has been a new challenge in front of all the stakeholders of India. These problems include- indiscipline, school violence, student unrest, sexual molestation, risk-behaviours, suicide inclination, psychological disorders, etc. (Swain, S., et al. 2014). To take it as a reference, one study conducted in 2015 on the school and college going students in Hyderabad, India, it was found that the 28% students from government and private schools as well as colleges showed substance abuse (mainly alcohol & tobacco), 16% showed high risk sexual behaviour, 16% students in schools and 20% from colleges had disturbed mental health suffering from depression and anxiety, 16% were engaged in violence & juvenile delinquency, and 20% had sexually transmitted infections (Aparna, A., et al 2015). Suicidal behaviour is increased among the youngsters in low and middle income countries. This has become a major public health issue (Pillai, A., et al 2008). School violence is found to be increased a lot in Rural and Urban schools of India (Garg, M 2017). Bullying and victimization among school going adolescents is found to be having adverse consequences for both victim and the aggressor (Thakkar, N 2020). Children from lower socio-economic classes are prone to such problems because of the society they are living in. Their parents are also less educated and busy whole day in earning money for their bread and butter.

Many scholars from Sociology, Psychology as well as other Social Sciences have tried to find out the answers and causes of these all problems. Researcher thinks here that, these all problems are the results of wrong expression of the emotions. It is required to teach these children to identify, control and manage their emotions. Many studies have proven the inverse correlation between Emotional Intelligence and all the above mentioned problems (Dominguez-Garcia, E. and Fernandez-Berrocal, P. 2018)(Abdulla, M.C. et al 2015)(Bonet, C., et al 2020)(Fenclau, E.J. 2016). Hence enhancing Emotional Intelligence can be one of the remedy for such problems of these children. Expressing emotions rightly at right time in a right way is very necessary. It is important to provide a right channel to vent out emotional energy of these children. Therefore, researcher thinks here to give a platform of different art forms for children to express their emotions. And study whether it helps to enhance their Emotional Intelligence.

Therefore, present study aims to enhance Emotional Intelligence of the children through expression of Navarasa. People have different perceptions of emotions as well as habits of expressing emotion across cultural backgrounds. Hence it is necessary to consider their Socio-economic status (SES) while designing intervention program for enhancing Emotional Intelligence of children. The general abilities required for grasping any knowledge or skill are- understanding, reasoning and evaluation. These abilities are called General Intelligence. If this not considered while making experimental and control groups, it will create confounding effect on the dependant variable. Hence it is managed through selection method. Adolescents go through different physiological and psychological changes in this age. Many time they are not comfortable working with the children of opposite gender. Hence different experimental and control groups of Girls and Boys were made in this study.

II.   METHODOLOGY

Objectives-
1. To design intervention program based on the expression of Navarasas.
2. To measure the effect of intervention on the emotional intelligence of students.
3. To find out gender differences on emotional intelligence of the children from lower socio-economic class.

Hypotheses-
Null-hypotheses-
1. There is no significant difference between the Emotional Intelligence of children from Lower SES after the intervention program.
2. There is no significant difference between the Emotional Intelligence of children from control and experimental groups before and after intervention program.
3. There is no significant difference between the Emotional Intelligence of Girls and Boys from experimental groups before and after the intervention program.

Operational definitions-
1. Emotional Intelligence-
In the present study Emotional Intelligence means the scores gained by the students on 'JPIP How Do I Feel' by Gadre and Lavlekar (2018). This test contains four factors of Emotional Intelligence namely, Emotional Perception, Emotional Assimilation, Emotional Understanding, and Emotional Management.
2. Navarasa-
Navarasa is nine emotions given by the Theory of Rasa. Eight of them are given by Bharata Muni in his famous text Natyashastra. And one is later added by Abhinavgupta in his text Abhinavbharati. These are- Sringar (Love), Hasyam (Laughter), Raudram (Fury), Karunyam (Compassion), Bibhatsam (Disgust), Bhayanakam (Horror), Viram (Courage), Adbhutam (Wonder), and Santam (Peace). Considering the age group of this study, Sringar rasa is not included in the intervention.
3. Gender-
In the present study Gender means two biological categories of the human beings- Male and female. Here considering the age group of the sample, present study will refer these categories as Boys and Girls.
4. Socio-Economic Status (SES)-
In the present study SES is the Socio-economic status obtained through Socio-Economic Status Scale (SESS-BR) by Bhardwaj. Five categories of SES are measured through this test- Upper class, Upper-middle class, Middle class, Upper-lower class, and Lower class.
5. General Intelligence-
In present study General Intelligence means the scores obtained by the sample on the test of- 'Standard Progressive Matrices' by J. C. Raven (2000).

Sample-
Total sample of this study consisted of 134 children. Among them, 68 were boys and 66 were girls. These children were from 5th- 7th standard. Multi-stage sampling method was used in this study. Convenience sampling method was used to select school putting the criteria of- willingness to participate in the study, cooperation for sessions, and socio-economic background of their students. Again convenience sampling method was used for selection of children based on the criteria of- Willingness to participate in the study, Readiness to attend all the sessions, and Availability for the sessions. The list of the study was made and then students were selected using random sampling method. After getting scores of Pre-testing, students were assigned to Experimental and Control groups using Matched random sampling technique based on their scores of General Intelligence and Emotional Intelligence. Four boys were dropped during the study time. Therefore there remained 130 children having 66 girls and 64 boys.

Tools-

1. *'JPIP How Do I Feel' by Gadre and Lavlekar (2018)-* This scale is based on the 'Ability Model' of Emotional Intelligence given by John Mayer and Peter Salovey (2000). It is also called 'Four Branch Model'. This test has four sections based on four branches of Ability Model namely- Emotional Perception, Emotional Assimilation, Emotional Understanding, and Emotional Management. This test provides composite score of the Emotional Intelligence as well as four scores of four branches distinctly. Each question measures separate ability of Emotional Intelligence. This test is developed for and standardised on Indian population.

2. *'Socio-Economic Status Scale (SESS-BR)' by Bhardwaj (2006)-* This scale measures seven areas of Socio-economic Status. These are- Social, Family, Education, Profession, Caste, Total Assets, and Monthly Income. Three types of status scores are obtained through this test- Ascribed Status, Achieved Status and Socio-economic Status (As a whole). Separate scores for Social Status and Economic Status are obtained in this scale. This scale provides Five classes of Socio-economic status, namely- Upper Class, Upper Middle Class, Middle Class, Upper Lower Class and Lower Class. Norms of this test are calculated on Indian population.

3. *Standard Progressive Matrices by Raven (2000)-* This test is non-verbal estimate of Fluid Intelligence. It measures Abstract Reasoning of a person. This test contains five sets (A to E) each having 12 questions. Items in each set become increasingly complex, difficult requires greater cognitive ability to understand (encode) and analyse. This is a culture-free test.

Intervention-

As mentioned above, eight rasas were considered in this study. Four pairs of rasas were made based on the Theory of Rasa. Four art forms were included as a medium of expressing Navarasas in this study. Those were- Dance, Drama, Singing and Drawing. Each pair of rasa was expressed through all four art forms. Therefore there were 16 sessions for Expression. Ability model of Emotional Intelligence was used for present study. This model contains four branches- Emotional Perception, Emotional Assimilation, Emotional Understanding and Emotional Management. Four theory sessions based on these four branches were conducted for every pair of Navarasa. Therefore there were 16 theory sessions as well. Two sessions were conducted for Rapport establishment and for introduction at the beginning. Hence there were 34 sessions in the intervention program. Intervention was conducted separately for Girls and Boys. Thus there were two experimental and two control groups.

III.   RESULTS

Table 3.1 Pre-testing data of Socio-Economic Status

Social Status	Mean Score	178
	Mean T-Score	28
	Class	Lower Class
Economic Status	Mean Score	102.5
	Mean T-Score	45
	Class	Middle Class
Socio-Economic Status	Mean Score	280.5
	Mean T-Score	29
	Class	**Lower Class**

Table 3.1 shows obtained Social Status, Economic Status and Socio-Economic Status of both the schools. Here, LSEC School students were found to be from Lower Class whereas HMSEC School students were found to be from Higher-middle Class.

Table 3.2 Descriptive Statistics of Emotional Intelligence (pre-testing N = 134)

Gender		N	Mean	SD
Total Emotional Intelligence	M	68	54.6434	12.82440

	F	66	58.0492	10.59229
EI Sec1	M	68	20.3750	4.38057
	F	66	20.4508	4.25807
EI Sec2	M	68	4.2426	2.23355
	F	66	5.3598	2.15377
EI Sec3	M	68	11.7426	5.20440
	F	66	11.1212	3.85612
EI Sec4	M	68	18.2831	6.61465
	F	66	21.1174	6.44865
General Intelligence	M	58	31.6897	11.38359
	F	66	27.3636	9.58145

Table 3.2 shows the obtained Mean scores, SDs and Ns of children at the time of pre-testing. This table also provides branch wise Mean and SDs of Emotional Intelligence.

Table 3.3 Descriptive statistics of Emotional Intelligence (Post-testing N = 130)

Groups	Gender		EI Total	Sec1	Sec2	Sec3	Sec4
Experimental	Boy	N	31	31	31	31	31
		Mean	76.3629	25.4677	6.7500	18.4355	25.7097
		SD	11.99476	3.46515	2.05142	4.72889	4.94431
	Girl	N	34	34	34	34	34
		Mean	83.9779	29.1838	7.6103	19.0000	28.1838
		SD	8.01428	3.73776	1.96001	3.81980	3.40638
	Total	N	65	65	65	65	65
		Mean	80.3462	27.4115	7.2000	18.7308	27.0038
		SD	10.73552	4.04115	2.03495	4.25283	4.35811
Control	Boy	N	33	33	33	33	33
		Mean	45.8106	16.4318	3.3030	12.5606	13.5152
		SD	24.52630	8.78437	2.55621	7.60834	8.09005
	Girl	N	32	32	32	32	32
		Mean	56.8750	19.6953	4.8359	12.1406	20.2031
		SD	10.49635	4.39975	1.83669	3.46930	6.02998
	Total	N	65	65	65	65	65
		Mean	51.2577	18.0385	4.0577	12.3538	16.8077
		SD	19.62679	7.11776	2.34470	5.90069	7.85436
Total	Boy	N	64	64	64	64	64
		Mean	60.6094	20.8086	4.9727	15.4063	19.4219
		SD	24.71616	8.10114	2.88748	6.98631	9.08927
	Girl	N	66	66	66	66	66
		Mean	70.8371	24.5833	6.2652	15.6742	24.3144
		SD	16.47571	6.25766	2.34762	5.00806	6.27576
	Total	N	130	130	130	130	130
		Mean	65.8019	22.7250	5.6288	15.5423	21.9058
		SD	21.48175	7.44117	2.69622	6.04089	8.13764

Table 3.3 shows the obtained Means, SDs and Ns of the children after the intervention program. This table gives group and gender wise distribution of obtained scores.

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Table 3.4 Difference between control and experimental groups
Table 3.4.1 Descriptive statistics of Total Control & Total Experimental groups

		Mean	SD	N
PreTotsc	Experimental	57.8000	12.02725	65
	Control	56.4000	10.95996	65
	Total	57.1000	11.48282	130
PostTotsc	Experimental	80.3462	10.73552	65
	Control	51.2577	19.62679	65
	Total	65.8019	21.48175	130

Table 3.4.1 indicates obtained Means, SDs, and Ns of children from control and experimental groups. The total experimental group considered here is made up by combining Girls' and Boys' experimental groups as well as the total control group taken here is also made up with Girls' and Boys' control groups.

Table 3.4.2 Tests of Between-Subjects Effects

	Type III Sum of Squares	Df	Mean Square	F	Sig.
Intercept	981817.375	1	981817.375	3393.832	.000**
Group	15105.127	1	15105.127	52.214	**.000**
Error	37029.716	128	289.295		

*Significant at .05 level of significance
**Significant at .01 level of significance

It is observed through table 3.4.2 that the difference between Emotional Intelligence of the children from control and experimental group is found to be significant at 99% level of confidence ($p < .01$). Here, the children from experimental groups have scored significantly higher than the children from control groups (table 3.4.1).

**Table 3.4.3 Tests of Within-Subjects Contrasts**

		Type III Sum of Squares	Df	Mean Square	F	Sig.
Time	Linear	4922.025	1	4922.025	52.741	**.000**
Time * Group	Linear	12458.077	1	12458.077	133.493	**.000**
Error(Time)	Linear	11945.491	128	93.324		

*Significant at .05 level of significance
**Significant at .01 level of significance

In table 3.4.3, we can see that the main effect of Time and the interaction effect between Time and Group both are found to be statistically significant at the .01 level of significance ($p < .01$). This means children from both the groups have scored significantly higher at Time 2 (post-testing) than Time 1 (pre-testing). Significant interaction effect shows that the performance of the experimental and control groups was not similar across the levels of Time. This will be much clear through following graph-

Figure 3.1 Interaction effect between Time and Groups
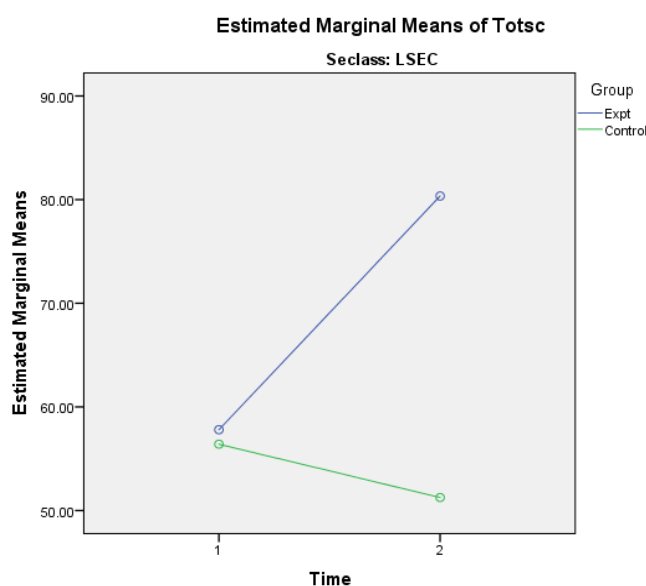
The figure 3.1 clearly indicates that the performance of the experimental group was high at Time 2 than Time 1 but performance of control group was little poor at Time 2 than Time 1. Hence interaction effect is found to be significant here because both the lines of graphs can intercept each other if extended. One more thing should be noticed here is that, significant main effect (table 3.4.2) of Time shows that all the students have performed high at Time 2 than Time. This effect is only because of the performance of the experimental group children and not the control group children.

Table 3.5 Mixed design ANOVA to see effect of Gender on impact of Intervention
Table 3.5.1 Descriptive statistics of Girls' and Boys' scores before and after the Intervention

		Mean	Std. Deviation	N
PreTotsc	Boy	57.129	13.7636	31
	Girl	58.412	10.3691	34
	Total	57.800	12.0272	65
PostTotsc	Boy	76.363	11.9948	31
	Girl	83.978	8.0143	34
	Total	80.346	10.7355	65

Table 3.5.1 shows obtained Means, SDs, and Ns by Girls and Boys before and after the intervention program.

Table 3.5.2 Tests of Between-Subjects Effects

	Type III Sum of Squares	Df	Mean Square	F	Sig.
Intercept	617081.975	1	617081.975	2788.312	.000
Gender	641.889	1	641.889	2.900	**.093**
Error	13942.542	63	221.310		

*Significant at .05 level of significance
**Significant at .01 level of significance

Table 3.5.2 indicate that no significant difference is obtained between the scores of Girls and Boys on Emotional Intelligence before and after the intervention program ($p > .05$).

Table 3.5.2 Tests of Within-Subjects Contrasts

		Type III Sum of Squares	Df	Mean Square	F	Sig.
Time	Linear	16272.497	1	16272.497	594.49	**.000****

Time * Gender	Linear	325.103	1	325.103	11.877	.001**
Error(Time)	Linear	1724.453	63	27.372		

*Significant at .05 level of significance
**Significant at .01 level of significance

Table 3.5.2 shows that, the main effect of Time as well as interaction effect between Time and Gender is found to be statistically significant at the .01 level of significance. This means, Girls and Boys have scored significantly higher at Time 2 than Time 1. Significant interaction effect indicates that the increase in the scores of Girls and Boys is not equal at Time 2. This will be much clear in following graphs-

Figure 3.4 Interaction effect between Time and Gender
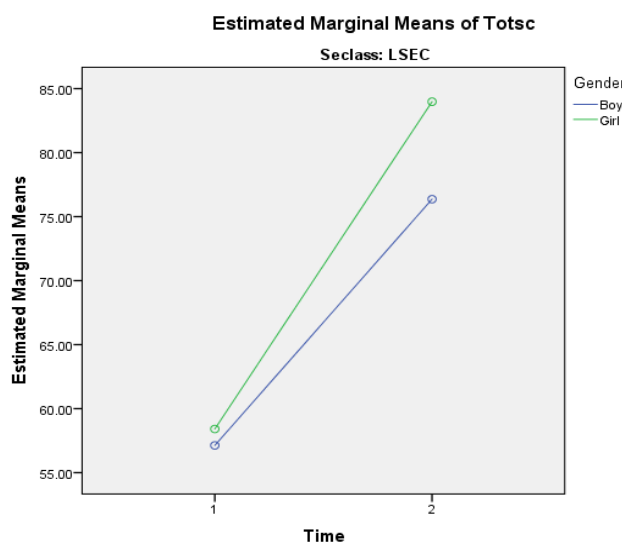
Here, it is clearly seen in figure 3.4 that though both Girls and Boys have scored much higher at Time 2, the Girls have scored considerably higher at Time 2 than Boys. Hence the interaction effect is found to be significant.

IV.   DISCUSSION
Effect of Intervention Program on Emotional Intelligence

Tables 3.4 show differences obtained in the scores of Emotional Intelligence obtained by control and experimental groups after the intervention program. Children from experimental groups have scored significantly higher than the control group students after the intervention program. This endorses the effect of the Intervention Program. It is proved through these results that the Intervention Program possess the value to improve Emotional Intelligence of the children from lower socio-economic backgrounds. Hence this program can be used as an effective tool for enhancing Emotional Intelligence of the children.

Intervention program designed for present study was based on the assumption that- expressing right emotions at right time in right way leads in enriching the Emotional Intelligence. For the purpose, four art forms were used as the medium for expressing Navarasa. Certainly these expression sessions were backed up with the theory sessions. But these methods are found to be effective in enhancing Emotional Intelligence of the children from lower SES. It is observed while conducting the sessions that, children used to wait eagerly for the expression sessions. This method was very new for these children and hence they were not that much comfortable in initial sessions. Later they started understanding the concepts and started enjoying the activities. Children did not want our sessions to end. They also requested to have such session in the next academic year. Some children who had showed vagabond type behaviour, showed sensible participation in the later sessions. Later children found to be very open, free and participative than the initial sessions.

Little decrease in the scores of Emotional Intelligence of control groups highlights the need of taking special efforts for the development of Emotional Intelligence of the children.

Effect of Gender on Impact of Intervention Program

No significant difference was found between the scores of Emotional Intelligence of Girls and Boys from experimental groups before and after the intervention program (table 3.5.2). Girls and Boys from

experimental groups have scored significantly higher after the intervention program. This means that the intervention program was equally effective for both Girls and Boys for enhancement of their Emotional Intelligence. These all results are proving the efficacy of the Intervention Program.

The significant interaction effect between time and gender indicates that- Girls have scored substantially higher than the boys after the intervention program. This means though the Intervention Program was found to be effective for both Girls and Boys, it was noticeably effective for Girls than Boys. It was found out in a study that the Girls from lower socio-economic class are found to have more restrictions to their independence than the boys and constrains them from being sociable which results into mental health problems. (Ram, U. et al. 2014). Therefore it is a success of this intervention program in this study which allowed Girls to get opportunity to express their feelings through different arts and which resulted in increase in their Emotional Intelligence more than the Boys. These Girls were hesitating to participate in the activities at initial session than the boys. This was total a different perspective for them to look at their emotions and thoughts. But there was a tremendous difference in their behaviour later. Girls started enjoying the sessions. They found to be happier than before. Girls who used to sit quite at back side during the sessions used to came at front and voluntarily engage themselves in helping the trainer in some tasks like- distribution of the sheets, collection of the notebooks, etc.

V.   CONCLUSION

- Children scored significantly higher at post-testing than pre-testing. The intervention program was found to be statistically successful in enhancing Emotional Intelligence of the children from Lower SES backgrounds.
- Both the experimental groups scored significantly higher than their respective control groups after the intervention program. Performance of the control groups was decreased little at the post-testing than pre-testing.
- No significant difference was obtained in the scores of Emotional Intelligence of Girls and Boys before and after the intervention program. Girls and Boys both have scored significantly higher at post-testing than pre-testing. However, Girls scored considerably higher than the Boys after the intervention program.

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