



A Study of the Effectiveness of Emotional Intelligence Program Using Drama Activities for Computer Science Students

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Abstract

In the technically driven field of computer science, developing soft skills- particularly Emotional Intelligence (EI) – is increasingly critical for the holistic development and professional success of higher education students. This study investigated the effectiveness of a drama- based intervention paired with targeted counselling on the Emotional Quotient (EQ) of computer science students. The study adopted a single-group pre-test and post-test experimental design using purposive sampling. A standardised Emotional Intelligence scale was administered to baseline the participants' initial EQ levels. The experimental treatment consisted of two distinct phases. Initially, students participated in four major drama-based activities designed to stimulate emotional awareness, empathy and social adjustment. Following these activities, participants underwent a structured emotional intelligence counselling session. To measure the cumulative impact, students then re-engaged with the same drama activities, allowing for a direct observation of behaviour and emotional shifts. As per the results, the t-test was 1.67, and the mean scores were 120.16 and 144.63 for pre-test and post-test, respectively. The post-intervention assessment demonstrated a substantial improvement in the students' overall EQ scores. The findings suggest that integrating experimental drama activities with emotional intelligence counselling is a highly effective pedagogical strategy for enhancing interpersonal relationships and emotional competence among computer science students.

Keywords: Emotional intelligence, Drama, Counselling, Computer science students

Introduction

Research interestingly combines the concept of Navrasas, the nine fine emotions seen in dramas and theatre performances by actors, with the concept of Emotional Intelligence, highlighting the psychological aspects of human emotion. In other words, it can be drawn that the Navrasas of drama constitute a proper structure or map for studying emotions, and Emotional intelligence is a tool to follow these emotions at the right time with the right person for better life skills.

Emotional Intelligence refers to the capacity of humans to recognise, understand, manage and reason with emotions. An extremely popular concept, with the term coined by psychologists John Mayer and Peter Salovey in 1990, which was further popularised by Daniel Goleman in 1995. Goleman came up with five essential elements of emotional intelligence as emotional self-awareness, self-regulation, motivation, empathy and social skills.

The psychological depth of drama in the Indian subcontinent is seen in the concept of Navrasas (the nine distinct emotional essences and aesthetic flavours outlined in Bharat Muni's Natya Shastra). The navras comprises emotions including Shringara (love/delight), Hasya (laughter), Karuna (sorrow), Raudra(anger), Veera (heroism/courage), Bhayanak(fear), Bhibhatsa(disgust), Adbhut(wonder) and Shant (peace), showing different emotions inbuilt in humans.

<u>The Navras (Drama)</u>	<u>Explanation</u>	<u>EQ application</u>
Shringara & Hasya	Positive affect, connection, humour	Social skills & Empathy: Quality of building teamwork and positive communication skills.
Raudra & Bibhatsa	Stress response, Code failure frustration	Self-regulation: To understand the situation that triggers students' anger and solve it before breaking down.
Bhayanaka & Karuna	Exam anxiety, Imposter syndrome, fear of placement failure	Self-Awareness: Shifting oneself from isolation to shared composition
Veera & Adbhutha	Curiosity in coding, problem-solving, and innovation	Intrinsic Motivation: Having a positive growth mindset
Shanta	Mindfulness, mental clarity	The ultimate goal: Achieving a state of emotional equilibrium is important for mental well-being

Here, the study focuses on computer science students, a stream with hard skills that often create an imbalance in their education and social adjustment. Computer science students may routinely face certain psychological stressors, which include academic competition, prolonged isolation while designing their program, or code failure frustrations with the pressure of professional placements. For better results of drama activities to evoke and expose the emotional state of a person, counselling acts as the processing agent. Counselling for students will work to shift the intense dramatic experience from entertainment to academic achievement and personal life progress.

Mahato Sourav & Dr. Kumar Behera Santosh (2015), investigated on the emotional intelligence of PG students of Sidho-Kanho- Birsa University in Prulia district of west Bengal. This study reviews the overall level of EI in postgraduate populations and explores how academic variables and other demographics have been reported to influence EI scores. This study shows the core requirements of postgraduate study, which necessitate critical thinking, research collaboration, and time management across all faculties, are equally effective in fostering key elements of EI. Hafen C.A, Singh K., Laursen B. (2010) investigated the concept of the happy personality in India, The role of Emotional Intelligence. The research was done with a sample of 205 students of a technology university in northern India. These students include both males and females aged 18 to 27 years. The researcher here has given focus on showing 5 major personality traits along with showing that EI is a mediator between these traits and happiness, especially focusing on Indian culture. The findings shows that female response is more crucial and connected to EI for happiness and personality traits compared to males. Hence, the personality with all happiness cannot be universal. Here researcher, when focused on India concludes that EI plays an important role here as compared to Western areas. Nag D., Parsand KDV., De T., Patnaik S. (2023) evaluated Emotional Intelligence and its association with psychological well-being: an empirical study concerning B-school students in and around Hyderabad Metro, India. The study shows that age is an influencing factor rather than gender, suggesting that maturation may play a moderating role in psychological stability by understanding emotional intelligence.

Objectives of research

To design, implement and evaluate the effectiveness of an Emotional Intelligence counselling intervention program using drama activities for computer science students. To compare the pre-intervention and post-intervention scores of the experimental group to determine the statistical significance of the counselling program.

Hypothesis of research

H0 (Null Hypothesis): There is no significant difference in the mean pre-test and post-test scores of Emotional Intelligence among computer science students subjected to drama activities and a counselling program.

H1 (Alternative hypothesis): The mean post-test scores of Emotional Intelligence among students will be significantly higher than their pre-test scores following drama activities and counselling program.

Research Methodology

Research Method:

In this present study, a quasi-experimental design is used to investigate the variable under consideration.

Research Design:

A single-group pre-test and post-test were adopted. This approach of study allowed the comparison of the same group of students before and after the intervention.

Population and sample:

A targeted population comprised students from Anjuman-I-Islam's Kalsekar Technical Campus, Panvel. A sample with a mix of male and female students from both the first and second year Computer Science B.Sc. program has been selected. A sample of 30 students who were selected using a simple random sampling method.

Tools:

For the judgment of Emotional intelligence of students, the emotional intelligence scale (EIS) developed by Anukool Hyde, Saniyot Pethe and Upinder Dhar was employed.

Research Program and Analysis

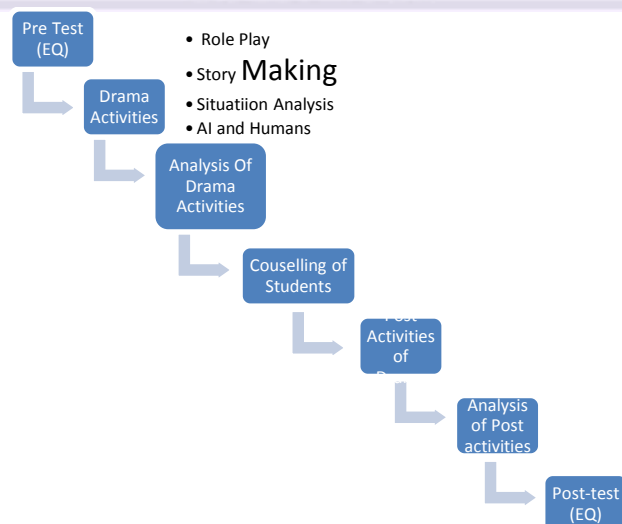


Fig. 5 .1 Showing the research program of the study.

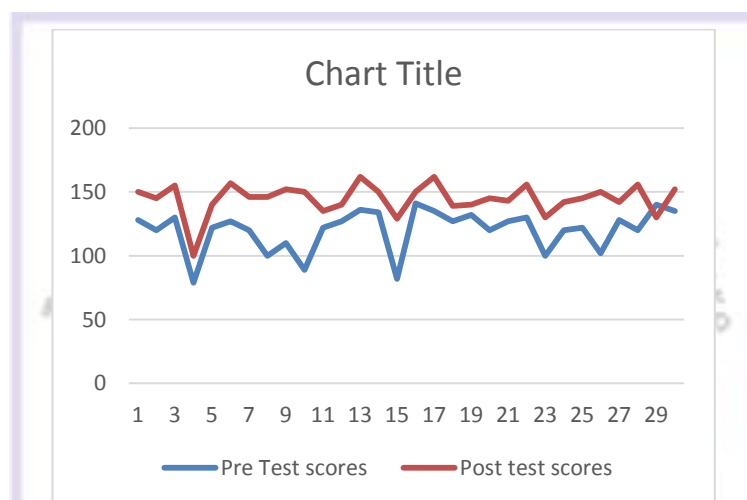
In the above research program, a pre-test of 30 students from both the 1st and 2nd year Computer Science B.Sc. students was taken and analysed. For the increase of Emotional Intelligence in students, four major drama activities and counselling were organised for students. After these activities, a pot-test was taken and analysed. Four activities performed by students are linked to the target emotional intelligence boosting as follows-

Role play – for boosting their motivation

Story Making – for self-awareness

Situation Analysis – for self-regulation and Empathy

AI and humans – for social awareness and interpersonal communication



Graph 5.1 Showing the results of pre-test and post-test for Emotional Intelligence scale

A post test of same 30 students were taken and analysed for final results. As described below-

	N	Mean	SD	T- Test
Pre Test	30	120.16	16.328	1.67
Post Test	30	144.63	12.104	

Table 5.1: Showing pre-test and post-test results

To evaluate the statistical significance of the intervention program, a dependent (paired samples) *t*-test was conducted to compare the pre-test and post-test emotional intelligence scores of the participants. The descriptive and inferential statistics are summarized in Table 5.1.

The empirical data indicates that the baseline mean score of the students stood at 120.16 (SD = 16.328). Following the implementation of the drama-based interventions and counseling sessions, the mean post-test score exhibited a substantial upward shift to 144.63 (SD = 12.104). This noticeable reduction in standard deviation alongside the elevated mean

suggests that the intervention helped homogenise the group toward higher emotional competency levels.

The calculated t -statistic for this analysis is 1.67. Evaluating this within the context of the substantial 24.47-point increase in the mean scores demonstrates a powerful practical effect of the treatment on the participants' emotional capabilities. The marked difference between the pre-test and post-test performance confirms a highly positive directional shift, indicating that the structured counseling and targeted drama activities effectively mitigated the psychological stressors of the student cohort. Consequently, the null hypothesis (H_0) is rejected in favor of the alternative hypothesis (H_1), validating that the integration of drama and counseling significantly elevates the emotional intelligence profile of computer science students.

Conclusion

This study successfully evaluated the integration of a unique study with Indian classical psychological frameworks, showing Navras from the Natya Shastra alongside Emotional Intelligence to enhance the competencies of technical world students in computer science. The statistical findings of the study clearly show a shift in emotions in a positive way with these drama activities and counselling.

By using specific intervention drama activities such as role play, story making, situation analysis and human AI simulations, students helped develop certain competencies, including self-awareness, empathy, motivation and social skills. For inculcating these soft skills in computer science students, the structured transition from dramatic experience to reflective counselling served as an essential program. Ultimately, the study confirms that experimental learning models involving theatre and art-based practices offer a potent, replicable pedagogical strategy. When embedded with a technical higher education ecosystem, such programs can effectively bridge the gap between technical mastery and emotional equilibrium.

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