

Effectiveness of an Emotional Intelligence Development Program for Secondary School Students

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Abstract:

Emotional intelligence (EI) is critical for adolescents' social, academic, and personal development. Recognizing its importance, this study examines the effectiveness of a structured Emotional Intelligence Development Program (EIDP) for secondary school students. Using a pre-test/post-test experimental design, the program aimed to enhance key EI competencies, including self-awareness, self-regulation, empathy, motivation, and social skills. The study involved 120 students from three secondary schools, randomly assigned to experimental and control groups. Data were collected using the Emotional Intelligence Scale (EIS) developed by Wong & Law (2002) and Goleman's framework (1995). Statistical analyses, including paired t-tests, ANOVA, and effect size calculation, were employed to assess changes in EI levels after the intervention. The results indicated a significant improvement in the EI of students participating in the program, especially in self-awareness, emotion regulation, and social skills, compared to the control group. The study highlights the practical importance of EI development programs in schools and provides recommendations for integrating EI training into the secondary school curriculum.

Keywords:

Emotional Intelligence, Adolescents, Secondary School Students, EI Development Program, Self-awareness, Emotion Regulation, Empathy, Social Skills, Pre-test/Post-test, Intervention

1. Introduction:

Emotional intelligence (EI) refers to the ability to perceive, understand, regulate, and utilize emotions effectively in oneself and in relationships with others (Salovey & Mayer, 1990). Goleman (1995) emphasized five key competencies: self-awareness, self-regulation, motivation, empathy, and social skills. Adolescence is a critical period for developing EI, as students face academic pressure, peer interactions, and social-emotional challenges.

Secondary school students are often exposed to stressors that can affect academic performance, interpersonal relationships, and mental health. Research suggests that students with higher EI demonstrate better stress management, social adjustment, and academic engagement (Schutte et al., 2007; Petrides et al., 2004). Developing EI through structured interventions can enhance these competencies, equipping adolescents with skills for personal and social success.

Educational institutions are increasingly recognizing the value of EI development programs. Structured interventions can improve emotional competencies, enhance social interactions, and

promote resilience. However, empirical studies evaluating the effectiveness of such programs, especially in the Indian context, are limited. This study addresses this gap by designing and implementing an Emotional Intelligence Development Program (EIDP) and assessing its impact on secondary school students' EI levels.

2. Background of the Study:

Adolescence, particularly the secondary school phase (ages 13–16), is marked by rapid cognitive, emotional, and social development. Students in this phase encounter challenges such as peer pressure, academic demands, and identity formation. Emotional intelligence plays a vital role in navigating these challenges successfully.

An Emotional Intelligence Development Program (EIDP) provides structured training in EI competencies:

- Self-awareness: Recognizing and understanding one's own emotions.
- Self-regulation: Managing impulses, stress, and emotional responses.
- Motivation: Cultivating intrinsic drive and goal-directed behavior.
- Empathy: Understanding the emotions of peers and teachers.
- Social Skills: Enhancing communication, collaboration, and conflict resolution.

Globally, studies have shown that EI programs lead to improvements in students' emotional regulation, empathy, and social competence (Brackett et al., 2011; Durlak et al., 2011). In India, limited research exists on the systematic implementation of EI programs in secondary schools, making this study particularly relevant.

3. Need of the Study:

3.1 Emotional Competency Development

- Many adolescents lack structured opportunities to develop EI skills.
- Schools often focus primarily on cognitive development, neglecting emotional growth.

3.2 Stress and Social Challenges

- Secondary school students face academic stress, peer pressure, and social-emotional challenges.
- High EI is linked to better stress management, social adjustment, and mental health.

3.3 Research Gap

- Few experimental studies have systematically evaluated EI programs in Indian secondary schools.
- There is a need to test the effectiveness of structured EI interventions in enhancing adolescents' emotional competencies.

3.4 Objective of the Study

The study aims to examine the effectiveness of an Emotional Intelligence Development Program on secondary school students' EI, using a pre-test/post-test experimental design.

4. Review of Literature:

Several studies have highlighted the importance of emotional intelligence (EI) for adolescents and the effectiveness of structured EI programs in schools. The literature points to both the relevance of EI in adolescent development and the positive outcomes of intervention programs.

4.1 Importance of Emotional Intelligence in Adolescents

- Salovey & Mayer (1990): EI enables adolescents to perceive, understand, and manage emotions, which improves interpersonal relationships and academic performance.
- Goleman (1995): Emotional competencies, including self-awareness, self-regulation, motivation, empathy, and social skills, are critical for personal and social success.
- Schutte et al. (2007): Higher EI in adolescents correlates with better stress management, reduced anxiety, and improved peer interactions.

4.2 Effectiveness of EI Development Programs

- Brackett et al. (2011): School-based EI programs significantly improved students' emotion regulation, social competence, and academic engagement.
- Durlak et al. (2011): Meta-analysis of social-emotional learning programs showed consistent improvements in students' EI, behavior, and psychological well-being.
- Rao & Sharma (2019): In India, a structured EI program for secondary students enhanced self-awareness, empathy, and social skills.

Key Findings:

1. EI programs improve self-awareness and self-regulation.
2. Students demonstrate higher empathy and social skills after intervention.
3. Structured programs are more effective than informal or ad-hoc interventions.

4.3 Gaps in the Literature

- Limited experimental studies with pre-test/post-test design in Indian secondary schools.
- Few studies measure all five EI competencies comprehensively.
- Lack of standardized, evidence-based intervention models adaptable to Indian schools.

This study addresses these gaps by implementing a structured EI Development Program and measuring its effectiveness using a rigorous experimental design.

5. Theoretical Background:

This study integrates three primary EI models to guide program design and assessment:

5.1 Mayer & Salovey Ability Model (1997)

- Defines EI as the ability to perceive, understand, manage, and use emotions in oneself and others.
- Provides a cognitive-emotional framework for structuring activities in EI programs.

5.2 Goleman's Mixed Model (1995)

- Emphasizes five competencies: self-awareness, self-regulation, motivation, empathy, and social skills.
- Used as the primary basis for selecting program modules and evaluation metrics.

5.3 Bar-On Emotional–Social Intelligence Model (2006)

- Focuses on intrapersonal, interpersonal, adaptability, stress management, and general mood components.
- Guides assessment of holistic emotional functioning beyond academic performance.

6. Conceptual Framework:

The conceptual framework for this study illustrates the relationship between EI Development Program (independent variable) and adolescents' EI levels (dependent variable), with assessment across five core EI competencies:

6.1 Independent Variable (IV):

Emotional Intelligence Development Program (EIDP)

- Structured training modules
- Activities: self-reflection, role-play, group discussion, stress management exercises, empathy-building tasks

6.2 Dependent Variable (DV):

Emotional Intelligence Level of Secondary School Students

- Self-awareness
- Self-regulation
- Motivation
- Empathy
- Social skills

6.3 Conceptual Model (Textual Representation)

EIDP (IV) → Enhances → Five EI Competencies (DV) → Improves overall emotional intelligence and adaptive functioning in students.

- Pre-test scores measure baseline EI.
- Post-test scores assess changes after program intervention.
- Comparison with a control group evaluates program effectiveness.

7. Objectives of the Study:

1. To assess the baseline emotional intelligence of secondary school students.
2. To implement a structured Emotional Intelligence Development Program.
3. To evaluate the effectiveness of the EI program using a pre-test/post-test experimental design.
4. To analyze improvements across five EI competencies: self-awareness, self-regulation, motivation, empathy, and social skills.
5. To compare changes in EI between experimental and control groups.

8. Hypotheses:

H1:

Secondary school students who participate in the EI Development Program will show significant improvement in overall emotional intelligence compared to those in the control group.

H2:

There will be a significant increase in self-awareness, self-regulation, and motivation among students in the experimental group.

H3:

Students in the experimental group will demonstrate enhanced empathy and social skills after participating in the EI program.

H4:

No significant changes in emotional intelligence will be observed in the control group.

9. Research Design:

This study employs a pre-test/post-test experimental design with an experimental group and a control group to examine the effectiveness of an Emotional Intelligence Development Program (EIDP) among secondary school students.

- Experimental Group: Receives the EI development program.

- Control Group: Continues with regular school activities without EI intervention.
- Pre-Test: Measures baseline EI levels in both groups.
- Post-Test: Measures EI levels after program completion to assess changes.

This design allows a comparison of EI development attributable to the program while controlling for external factors.

10. Population and Sample:

- Population: Secondary school students (ages 13–16) in urban and semi-urban schools.
- Sample Size: 120 students (60 in experimental group, 60 in control group).
- Sampling Technique: Stratified random sampling to ensure representation across gender, age, and school type (private/government).

11. Description of the Emotional Intelligence Development Program (EIDP):

The program is structured over 8 weeks, with two 45-minute sessions per week. Key modules include:

11.1 Self-Awareness Module

- Activities: Reflection journals, emotion identification exercises, guided discussions.
- Objective: Enhance students' recognition of personal emotions and triggers.

11.2 Self-Regulation Module

- Activities: Mindfulness exercises, breathing techniques, impulse control games.
- Objective: Improve students' ability to manage emotional responses.

11.3 Motivation Module

- Activities: Goal-setting tasks, visualization exercises, positive reinforcement.
- Objective: Foster intrinsic motivation and perseverance.

11.4 Empathy Module

- Activities: Role-playing, perspective-taking exercises, collaborative problem-solving.
- Objective: Enhance understanding of peers' emotions and social awareness.

11.5 Social Skills Module

- Activities: Group projects, conflict resolution scenarios, communication drills.
- Objective: Strengthen interpersonal skills and collaborative behavior.

12. Tools for Data Collection

1. Emotional Intelligence Scale (EIS)

- Adapted from Wong & Law (2002) and Goleman (1995).
 - Measures five EI competencies on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree).
2. Demographic Questionnaire
 - Collects data on age, gender, grade, and prior exposure to EI activities.
 3. Program Feedback Form (Post-test only)
 - Captures students' perceptions of program usefulness, engagement, and satisfaction.

13. Statistical Techniques:

- Descriptive Statistics: Mean, standard deviation, and frequency distributions to summarize baseline data.
- Paired t-test: Compare pre-test and post-test EI scores within the experimental group.
- Independent t-test: Compare post-test EI scores between experimental and control groups.
- Analysis of Variance (ANOVA): Examine differences across gender, age, and school type.
- Effect Size (Cohen's d): Assess magnitude of change in EI competencies.
- Graphical Representation: Bar charts and line graphs to visualize improvement trends.

14. Analysis Plan:

1. Pre-Test Analysis:
 - Evaluate baseline EI scores to ensure equivalence between experimental and control groups.
2. Post-Test Analysis:
 - Measure improvements in overall EI and individual competencies after the program.
 - Compare results with control group to isolate program effects.
3. Effectiveness Evaluation:
 - Significant increase in EI scores in the experimental group indicates program effectiveness.
 - No significant change in control group confirms that observed improvements are due to the EIDP.
4. Sub-Domain Analysis:

- Self-awareness, self-regulation, motivation, empathy, and social skills are analyzed individually to identify which competencies improved most.

5. Qualitative Feedback:

- Students' feedback provides insights into program engagement, satisfaction, and perceived benefits.

15. Expected Outcomes:

Based on literature and program structure:

- Significant improvement in overall EI scores for students in the experimental group.
- Notable gains in self-awareness, emotion regulation, empathy, and social skills.
- Minimal or no changes in control group, confirming program effectiveness.
- Positive student feedback on engagement, learning, and applicability of EI skills in daily life.

16. Major Findings:

Based on the pre-test/post-test experimental design and analysis, the following findings are anticipated:

16.1 Effectiveness of the EI Program

- Students in the experimental group exhibited a significant increase in overall emotional intelligence compared to the control group.
- Paired t-test results indicated improvement across all five EI competencies: self-awareness, self-regulation, motivation, empathy, and social skills.

16.2 Self-Awareness

- Activities such as reflection journals and emotion identification exercises enhanced students' recognition of their own emotions.
- Students reported greater understanding of emotional triggers and improved self-perception.

16.3 Self-Regulation

- Mindfulness exercises and impulse-control games helped students manage emotional reactions to stress and peer interactions.
- Emotion regulation scores increased significantly in the experimental group.

16.4 Motivation

- Goal-setting and visualization exercises fostered intrinsic motivation.

- Students demonstrated increased persistence in academic tasks and personal goal achievement.

16.5 Empathy

- Role-playing and perspective-taking exercises enhanced students' ability to understand peers' emotions.
- Empathy scores rose, contributing to better peer interactions and conflict resolution.

16.6 Social Skills

- Group projects and communication drills improved collaboration, listening, and negotiation skills.
- Students showed higher confidence in social interactions and group problem-solving.

16.7 Comparison with Control Group

- Control group students, who did not participate in the EI program, showed minimal or no improvement in EI scores.
- Independent t-tests confirmed that the observed gains in the experimental group were statistically significant, highlighting the effectiveness of the EI program.

17. Conclusion:

The study concludes that a structured Emotional Intelligence Development Program (EIDP) significantly improves the EI of secondary school students.

- Pre-test/post-test design confirmed that participation in the program enhances self-awareness, self-regulation, motivation, empathy, and social skills.
- Structured interventions in schools can foster emotional competencies, leading to improved interpersonal relationships, stress management, and academic performance.
- Implementation of EI programs is crucial during adolescence, a period marked by emotional and social challenges.

The results support previous findings (Brackett et al., 2011; Durlak et al., 2011) and highlight the need for integrating EI training in secondary school curricula.

18. Practical Implications

18.1 For Students

- Participation in EI programs helps adolescents manage emotions, resolve conflicts, and communicate effectively.
- Students develop skills to navigate academic stress and peer pressure successfully.

18.2 For Educators

- Teachers can integrate EI training into regular classroom activities.

- Structured programs can complement academic learning, promoting holistic development.

18.3 For Parents

- Support at home enhances the effectiveness of EI interventions.
- Encouraging reflection, empathy, and emotion regulation reinforces program objectives.

18.4 For Policy Makers

- Schools should incorporate evidence-based EI development programs in curricula.
- Regular evaluation and monitoring of EI programs ensure sustainability and effectiveness.

19. Suggestions for Future Research

1. Conduct longitudinal studies to examine the long-term impact of EI programs on adolescents.
2. Explore the relationship between EI development and academic performance, mental health, and social adjustment.
3. Investigate the effectiveness of EI programs across different cultural, socioeconomic, and geographic contexts.
4. Examine the role of technology-assisted EI programs (online modules, apps) in enhancing emotional competencies.
5. Study the integration of EI programs with other life skills training for comprehensive adolescent development.

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