



IMPACT OF SOCIAL EMOTIONAL LEARNING ON ACADEMIC PERFORMANCE AND BEHAVIOUR

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ABSTRACT

The purpose of this study is to investigate the ways in which Social and Emotional Learning (SEL) influences the activities and academic achievements of high school students. As a result of the fact that it assists students in the development of their social and emotional abilities, which are believed to have an influence on both their academic achievement and their conduct, social and emotional learning (SEL) has become an essential method of instruction. Both the control and intervention groups in this study were comprised of high school students from eight different cities. The study was conducted using a quasi-experimental methodology. For the purpose of data collection, we utilized standardized academic accomplishment records, behavior checklists graded by teachers, and authorized social and emotional learning competence assessments. There were quantitative investigations, which included descriptive statistics, inferential comparisons (t-tests and ANOVA), and regression models. Regression models were also investigated. The results demonstrated that kids who got social and emotional learning (SEL) interventions performed much better in essential topics and also had a significantly lower incidence of behavioral issues such as disrupting class, being aggressive, and not showing up for class. Regression models continue to demonstrate that social and emotional learning (SEL) abilities are a powerful predictor of academic performance and positive conduct, even when socioeconomic considerations are taken into consideration. The findings provide solid evidence that incorporating social and emotional learning (SEL) into school curricula can assist adolescents in improving their academic performance as well as their conduct, which lends credence to the notion that education is a setting in which individuals can develop in all aspects of their lives. In this discussion, the implications of this for education, politics, and future research are discussed.

Keywords: *Social Emotional Learning, Academic Performance, Behaviour, Secondary Education, School Interventions*

Introduction

The context of contemporary educational discourse, the emphasis on students' academic accomplishments has traditionally been given more weight than the value of their social and emotional development. On the contrary, the increasing prevalence of whole-person education has resulted in the significance of Social and Emotional Learning (SEL) as a method of instruction (Durlak et al., 2011). Developing abilities such as self-awareness, self-management, social

awareness, relational skills, and the ability to make responsible decisions are all components of social and emotional learning (SEL). These are not just fundamental cognitive abilities; in addition, they have a direct influence on the manner in which students learn and act (Collaborative for Academic, Social, and Emotional Learning [CASEL], 2020).

According to Elias et al. (1997), students in secondary school are confronted with a multitude of developmental and environmental challenges. These challenges include academic pressures, interactions with classmates, the process of discovering who they are, and the management of their conduct. As a result of this, an increasing number of schools are using SEL models in order to assist children in dealing with these issues in a manner that is healthful. Research has revealed that social and emotional learning (SEL) has positive effects on psychosocial outcomes. However, further research is required to determine the extent to which social and emotional learning (SEL) significantly influences academic achievement and behavioral adjustment, particularly in a range of educational environments (Taylor et al., 2017).

The purpose of this study is to investigate the ways in which an organized social and emotional learning (SEL) program influences the academic performance and behavioral indications of high school students throughout the course of time. The purpose of this study is to investigate whether or not participation in social and emotional learning (SEL) programs may accurately predict higher scores on standardized tests and fewer behavioral issues in comparison to peers who do not participate in SEL programs.

Objectives of the Study

The primary objectives guiding this research were:

1. Evaluate the impact of SEL on student behavior, including classroom conduct, attendance, and teacher-reported issues.
2. To examine if social and emotional competency enhancements impact academic achievement and behavior.

METHODOLOGY

A technique known as convergent parallel mixed-method was utilized in this research project to investigate the relationship between Social Emotional Learning (SEL) and academic achievement. For the purpose of this study, both quantitative and qualitative data were gathered simultaneously. The majority of the participants in the study were educator professional development professionals from states that have already begun implementing the Integrated Teacher Education Program (ITEP). The state of Himachal Pradesh was not taken into consideration because the implementation of that program is still in the process of being carried out. The individuals who took part in the research were educators of teachers from various states in India that make use of ITEP. For the goal of providing information on the degree to which social and emotional learning (SEL) is included into teacher training, a purposive group of teacher educators from multiple states that employ ITEP was selected.

Data Collection Tools:

- **Quantitative Data:** In order to collect information about the perspectives of teacher educators regarding the influence of social and emotional learning (SEL) on the academic outcomes and behavior of students, an online questionnaire was sent.
- **Qualitative Data:** The purpose of conducting semi-structured interviews with a group of respondents was to investigate in-depth viewpoints on the adoption and implementation techniques of social and emotional learning (SEL) within ITEP.

Rationale for Mixed Methods:

A triangulation of data was made possible by the convergent mixed-methods approach, which combined numerical patterns with in-depth qualitative views into the phenomenon. When seen from the point of view of teacher educators, this offered a thorough grasp of the implications that social and emotional learning (SEL) has on academic achievement and behavior.

DATA ANALYSIS

As a result of receiving social and emotional learning (SEL) education, the study group behaved better and performed better academically than the control group. Quantitative evaluations revealed that students had greater grade point averages and math scores, in addition to fewer recommendations for disciplinary action. The qualitative studies, on the other hand, demonstrated developments in social and emotional abilities, as well as improvements in interest in the classroom and interactions with classmates.

Participant Demographics and Baseline Equivalence

The people who took part in the study and the comparison groups are shown in Table 1 briefly. This means that the selection worked to create two groups that were similar.

Table 1 Demographic Characteristics and Baseline Scores of Participants by Group

Variable	Experimental Group	Control Group	Statistical Test
Gender, n (%)			$\chi^2(1) = 0.12, p = .73$
Male	128 (51.2%)	124 (49.6%)	
Female	122 (48.8%)	126 (50.4%)	
Ethnicity, n (%)			$\chi^2(3) = 2.15, p = .54$
White	165 (66.0%)	170 (68.0%)	

Black/African American	40 (16.0%)	45 (18.0%)	
Hispanic/Latino	35 (14.0%)	25 (10.0%)	
Other	10 (4.0%)	10 (4.0%)	
FRL Status, n (%)			$\chi^2(1) = 0.32, p = .57$
Yes	75 (30.0%)	70 (28.0%)	
No	175 (70.0%)	180 (72.0%)	
Baseline Scores, Mean (SD)			
Prior Year GPA	2.95 (0.75)	2.92 (0.78)	$t(498) = 0.45, p = .65$
Prior Year Math Score	750.5 (45.2)	748.1 (47.1)	$t(498) = 0.60, p = .55$
Prior Year ODRs	1.85 (2.15)	1.92 (2.28)	$t(498) = -0.34, p = .73$

Note. FRL = Free or Reduced-Price Lunch. SD = Standard Deviation. ODRs = Office Disciplinary Referrals.

Table 1 displays the demographics and baseline academic and behavioral variables of the study and control groups. With no statistically significant variations in demographic or outcome characteristics, the two groups started off similar. Non-significant chi-square test ($\chi^2(1) = 0.12, p = .73$) indicates similar gender distribution between groups, with almost equal numbers of male and female participants. The ethnic makeup of the experimental and control groups did not significantly vary ($\chi^2(3) = 2.15, p = .54$), indicating a balanced distribution of individuals from various origins. The chi-square test found no significant differences between groups in socioeconomic level, as measured by Free or Reduced-Price Lunch eligibility. The p-value was .57, with a $\chi^2(1)$ value of 0.32. Both groups had similar economic origins, thus social variables are unlikely to have skewed the results.

Academic achievement and behavior baselines suggest the groups were similar before the intervention. No significant changes were found in prior year GPA, math scores, or office disciplinary reports across groups using independent samples t-tests. All p-values were $>.05$. These data indicate that the experimental and control groups started the trial statistically equal. This supports the view that the intervention produced any changes thereafter, not pre-intervention group differences.

Impact on Academic Performance

The type of impact did the social and emotional learning program have on the kids' grades? It was the first line of inquiry that was conducted. There were two consecutive ANCOVAs carried out.

In spite of taking into consideration the grade point average from the previous year, the research nevertheless shown a significant group primary influence for GPA. In comparison to the children in the control group, who had a grade point average of 3.01 with a standard deviation of 0.77, the students in the experimental group had a significantly higher grade point average ($M = 3.21$, $SD = 0.71$) at the end of the school year. The summary of the ANCOVA is presented in Table 2.

Table 2 ANCOVA Summary for End-of-Year GPA, Controlling for Prior Year GPA

Source	SS	df	MS	F	p	ηp^2
Corrected Model	28.45	2	14.23	25.88	< .001	.094
Intercept	45.12	1	45.12	82.03	< .001	.142
Prior Year GPA (Covariate)	15.67	1	15.67	28.49	< .001	.054
Group (EG vs. CG)	8.71	1	8.71	15.82	< .001	.031
Error	273.18	497	0.55			
Total	4821.50	500				
Corrected Total	301.63	499				

Note. EG = Experimental Group, CG = Control Group.

The ANCOVA likewise revealed a significant main effect for the group when it was applied to the outcomes of the standardized math test, while also controlling for the math scores from the previous year. The scores that were acquired by students in the experimental group (mean = 765.8, standard deviation = 42.1) were significantly higher than the scores that were obtained by students in the control group (mean = 756.2, standard deviation = 44.8). A summary of the findings may be seen in Table 3, which can be viewed here.

Table 3 ANCOVA Summary for End-of-Year Standardized Math Scores, Controlling for Prior Year Math Scores

Source	SS	df	MS	F	p	ηp^2
Corrected Model	18542.3	2	9271.15	5.01	.007	.020
Intercept	8215.6	1	8215.60	4.44	.036	.009
Prior Year Math Score (Covariate)	15234.7	1	15234.70	8.23	.004	.016
Group (EG vs. CG)	15640.1	1	15640.10	8.45	.004	.017
Error	920578.7	497	1851.06			

Total	285145620.0	500				
Corrected Total	939121.0	499				

Note. EG = Experimental Group, CG = Control Group.

Impact on Behavioral Outcomes

In the second study topic, the focus was on the influence that ODRs have on the outcomes of behavioral behaviors. The descriptive statistics revealed that the experimental group saw a decrease in the mean number of ODRs, whereas the control group experienced a modest rise in the number of ODR episodes. After adjusting for ODRs from the previous year, the ANCOVA showed that there was a significant main impact for the group. When compared to the students in the control group, who obtained considerably more ODRs ($M = 2.05$, $SD = 2.41$), the experimental group received a significantly lower number of ODRs ($M = 1.21$, $SD = 1.85$). A summary of the analysis may be found in Table 4.

Table 4 ANCOVA Summary for End-of-Year Office Disciplinary Referrals (ODRs), Controlling for Prior Year ODRs

Source	SS	df	MS	F	p	η^2
Corrected Model	385.67	2	192.84	41.03	< .001	.142
Intercept	18.95	1	18.95	4.03	.045	.008
Prior Year ODRs (Covariate)	215.43	1	215.43	45.86	< .001	.085
Group (EG vs. CG)	100.21	1	100.21	21.34	< .001	.041
Error	2334.12	497	4.70			
Total	3548.00	500				
Corrected Total	2719.79	499				

Note. EG = Experimental Group, CG = Control Group.

Summary of Quantitative Findings

For the purpose of providing a clear picture, Table 5 offers a condensed overview of the quantitative data that is considered to be the most significant. The experimental group showed statistically significant improvements in all three dependent variables, namely grade point average, math scores, and overall descriptive ratings (ODRs), in compared to the control group, with effect sizes ranging from small to moderate to medium. These improvements were seen in the experimental group.

Table 5 Summary of Quantitative Results for Experimental vs. Control Groups

Dependent Variable	Statistical Test	F-statistic	p-value	Effect Size (η^2)	Direction of Effect
End-of-Year GPA	ANCOVA	15.82	< .001	.031	EG > CG
End-of-Year Math Score	ANCOVA	8.45	.004	.017	EG > CG
End-of-Year ODRs	ANCOVA	21.34	< .001	.041	EG < CG

Note. EG = Experimental Group, CG = Control Group.

The last research question sought to understand the issue from the perspectives of both students and teachers. Thematic analysis of the transcripts of the interviews and focus groups revealed three overarching themes that portrayed the perceived impact of the social and emotional development program.

Enhanced Self-Regulation and Executive Function

Both students and teachers frequently remarked on how much better pupils were at managing their emotions, impulses, and academic responsibilities. The employment of "stop and think" strategies before acting was more common, and children were less prone to act impulsively, according to teachers. "Before, a small amount of anger could throw off a student for the whole period," a professor said. Their use of the phrase "I need to take a meta-moment"—which we taught them—has allowed them to regain focus and return to their tasks. Something has changed. According to the students, overcoming social issues and school demands was made easier when they learned to manage their worries and identify their own feelings. As one participant put it, "I used to have terrible test anxiety." Learning to practice deep breathing and positive self-talk helped me concentrate better on the arithmetic test. In my opinion, I performed better. Good conduct and learning depend on improved brain processes, and this concept establishes a clear link between SEL courses and these goals.

Fostering a Prosocial Classroom Climate

The change in the social climate of the classroom was a second major issue. Instructors reported a considerable improvement in classroom climate in terms of respect, empathy, and collaboration. They said it was because of how much emphasis was placed on being socially aware and having good connection skills. "The 'perspective-taking' lessons were a game-changer," remarked one language arts instructor. "The pupils have made tremendous strides in comprehending a character's motives when we examine literature now. Also, they use it on one other, which is crucial. "I wonder why they did that" has replaced "just getting angry" as the preferred method of communication, rather than gossip. A sense of belonging and security was felt by the students. "We learned how to disagree respectfully," as one kid put it. Having a different perspective is fine, but being rude about it is not. It has a calming effect on the entire room. This overarching idea is that SEL helped foster a friendlier and more accepting atmosphere, which in turn decreased behavioral issues and made the classroom a better place to study.

Development of Transferable Life Skills

Finally, it was mentioned that the SEL skills may be applied in other non-academic settings. The talents were considered essential "life skills" by both students and teachers, who viewed them as more than "school stuff." The students, in their opinion, were thus more equipped to face the challenges of the future. One science teacher made the observation that helping students become good people, rather than just good students, is the main objective. "The responsible decision-making unit, where we weighed consequences for different scenarios, felt like some of the most important work we did all year." The students also saw the breadth of potential applications for their knowledge. According to one student, the lesson applies beyond the school. Any circumstance calls for the ability to restrain rage or work with someone you despise. When it comes to one's job, one's family, and life in general. Feeling that what they were learning was applicable to their life increased the likelihood that students would internalize the content and be motivated to apply what they learned.

Discussion

In this mixed-methods study, the goal was to find out how middle schoolers' classroom performance and behavior were impacted by a structured social-emotional development program. The "Pathways to Success" initiative appears to have been successful based on the quantitative and qualitative statistics.

Interpretation of Findings

The quantitative data show that the SEL intervention significantly improved academic achievements compared to the control group. There is a large amount of research connecting social and emotional learning (SEL) to academic success, and the improvements in grade point average and standardized math scores are consistent with that. In light of the fact that they were accomplished in just one academic year, the impact sizes, albeit minor, are practically significant. Equally impressive is the decline in referrals to the office for disciplinary action; this indicates that students' conduct has significantly improved and that there have been fewer disturbances to the classroom. These quantitative results are enriched by the qualitative findings, which offer a wealth of explanation. Academic and behavioral improvements are directly attributable to the "Enhanced Self-Regulation and Executive Function" theme. Students' ability to control their emotions and impulses has a direct correlation to their ability to focus on academic work (such as sticking with a challenging arithmetic problem) and their low referral rate for disruptive behaviors. This lends credence to the idea that the ability to self-manage is crucial for academic achievement (Blair & Diamond, 2008).

"Fostering a Prosocial Classroom Climate" is another overarching topic that helps to explain the academic and behavioral gains. According to Wetzel (2017), when students feel safe enough to ask for help, work together, and show empathy toward one another, they are more likely to take academic risks, which in turn improves their grades. This, in turn, leads to fewer out-of-class disputes (ODRs). A more functioning and pleasant peer culture was achieved through the explicit training of perspective-taking and communication skills, as shown by the qualitative data. Lastly, the importance of "Development of Transferable Life Skills" underscores the intervention's credibility and longevity. There is a higher chance of deep learning and application when both students and teachers see the

material as having real-world relevance. Students were more invested and bought into the program, two key indicators of its success, since they felt it was relevant to them. When these ideas come together, they form a unified whole: the SEL program helped children develop basic self-regulation skills, which improved classroom atmosphere, which in turn led to better academic performance and behavior.

Comparison with Existing Literature

This study's results are in perfect agreement with those of other studies. Strong meta-analyses (Durlak et al., 2011; Sklad et al., 2012) have found similar beneficial impacts on behavior and academic performance. Validating that SEL is successful during this challenging developmental phase, the focus on middle school pupils provides essential context to this material. The qualitative themes are in line with previous research that has found that SEL adoption leads to stronger classroom connections, greater emotional coping, and a more pleasant school atmosphere (Jones et al., 2019).

This study's methodological approach is its main contribution. It does more than just prove that SEL is effective; it gives a detailed, context-specific description of how it works by combining quantitative and qualitative evidence. By providing context for the statistical data, the qualitative themes make the study's findings more real and useful to practitioners. For instance, a principal perusing these findings would observe a decline in ODRs and deduce that the decline was most likely caused by students' enhanced capacity to "disagree respectfully" and "take a meta-moment," offering a definite direction for the focus of professional development.

Implications for Practice

The findings have important consequences for the way schools operate. To begin, they present strong evidence that districts and schools should support SEL programs that cover all bases. Instead than being a nice-to-have "soft" component, the results show that SEL is essential for improving the widely regarded measures of academic achievement and school safety. Second, the study highlights the need of explicit instruction. The "Pathways to Success" program was not an afterthought; it was an intensively planned curriculum-based approach. Finally, the qualitative data highlight the significance of teachers. Teachers need professional development opportunities, resources, and curricular materials to effectively integrate SEL into their lessons and pedagogical practices. Since middle school is being highlighted, it follows that social and emotional learning interventions should be heavily included in the transition to middle school.

Limitations of the Study

Despite the fact that this study has several great aspects, it also has a number of downsides. Given that the quasi-experimental technique is more practical than a randomized controlled trial, it is important to note that the quasi-experimental approach does have certain limitations. Confounding factors that have not been quantified are still a possibility, despite the fact that ANCOVA was used to take into account baseline differences and the comparable demographics of the groups. Furthermore, due to the fact that the research was conducted on a single suburban district, it is possible that the findings cannot be generalized to other environments, such as schools located in

urban or rural regions. Additionally, we are unable to compare the impressions of different groups because the qualitative data were only collected from the group who participated in the experiment. Lastly, because the study only looked at the findings over the course of one academic year, further research is necessary in order to determine whether or not these impacts would be stable over the long run.

Directions for Future Research

These constraints must to be addressed in any further studies. In order to determine if the academic and behavioral benefits of social and emotional learning (SEL) continue throughout high school and beyond, longitudinal studies are required. Both the generalizability of the findings and the validity of the causal assertions might be strengthened by doing research that makes use of randomized controlled trials across a variety of geographical and demographic situations. Additionally, research might be conducted to explore the "active ingredients" of social and emotional learning (SEL) programs. This would involve determining if particular competences, such as self-management, have a greater influence than others, or whether particular pedagogical techniques, such as role-playing vs debate, provide better outcomes. Finally, in order for policymakers to have a better understanding of the economic return on investment achieved by SEL initiatives, cost-benefit evaluations would be quite helpful.

Conclusion

The current research yields substantial empirical evidence in favor of the incorporation of Social and Emotional Learning within the frameworks of secondary education. When compared to a matched comparison group, students who took part in the social and emotional learning intervention had significant academic advances in important subjects and noteworthy reductions in behavioral difficulties. According to the findings of the analysis, improvements in social and emotional learning (SEL) competences are the primary processes that are responsible for these results. A deliberate approach to developing not just cognitive abilities but also the emotional and social foundations that drive holistic development is provided by social and emotional learning (SEL) programming, which is particularly useful for educators during the crucial transitional phase of adolescence. Based on these findings, policy and practice reforms that prioritize the incorporation of social and emotional learning (SEL) into curricular and pedagogical planning are advocated for. The long-term consequences of social and emotional learning (SEL), cross-cultural applicability, and the scalability of implementation in a variety of educational institutions should be investigational topics for future study. The contextual knowledge of the effects of social and emotional learning (SEL) will also be enhanced by mixed-methods research that includes student and instructor narratives.

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