Research in Psychology and Behavioral Sciences, 2023, Vol. 11, No. 2, 39-42
Available online at http://pubs.sciepub.com/rpbs/11/2/1
Published by Science and Education Publishing
DOI:10.12691/rpbs-11-2-1

Emotional Intelligence in the Elementary Classroom

Kellie Bartnick, Kimberly Wilson

Intervention Services & Leadership in Education, Wichita State University, Wichita, USA
*Corresponding author: kim.wilson@wichita.edu

Received September 09, 2023; Revised October 10, 2023; Accepted October 17, 2023

Abstract The purpose of this research study was to experimentally consider how implementing an explicitly taught social-emotional curriculum would affect student self-regulation and academic performance. The participants in the study were four teachers (two primary and two aides) and 38 students (14 female and 24 male, age 5-6) from two kindergarten classes from a large urban district. One Kindergarten class was chosen at random to receive the social-emotional curriculum over an 8-week period. The other class did not receive the curriculum, acting as the control group. Measures of self-regulation and academic achievement in literacy and numeracy were administered at pre- and post-assessment. Findings indicate that self-regulation skills are correlated, at a statistically significant level, with early literacy and numeracy academic achievement. These findings support the claim that emotional intelligence and the ability to self-regulate is tied to positive developmental outcomes, including academic engagement and performance, which facilitates learning.

Keywords: *self-regulation, school performance, executive function, academic achievement, literacy, numeracy*

Cite This Article: Kellie Bartnick, and Kimberly Wilson, "Emotional Intelligence in the Elementary Classroom." Research in Psychology and Behavioral Sciences, vol. 11, no. 2 (2023): 39-42. doi: 10.12691/rpbs-11-2-1.

1. Introduction

The development of social-emotional intelligence is an integral part of a child's early years. From birth to age five, children form the foundational skills necessary for forming secure relationships, self-regulating behaviors, expressing emotions, and building social skills through interactions. The Collaborative for Academic, Social and Emotional Learning (CASEL) has outlined five fundamental competencies to be developed during the early years to maximize children's well-being and potential: self-awareness, social awareness, self-management, relationship skills, and responsible decision-making [1]. Yet, many curriculums do not place a high priority on the social-emotional domain and instead stress cognitive competence as the primary influence on academic achievement. Research has not indicated this to be the case. According to [2], the greatest influences on learning are driven by affective and motivational factors. Furthermore, there is a direct correlation between social-emotional competencies and reading achievement. In another study, children considered to be "at risk" or below-average in academic skills often lacked the social-emotional competencies of confidence, persistence, and organization [1]. Many curriculums do not place a high priority on intentionally building social-emotional competencies, instead opting for social-emotional-enhanced curriculum, whereas the social-emotional domain is used to support learning in other content areas. This type of curriculum is usually accompanied by implicit instruction techniques – children are allowed to draw their own conclusions from the material without the guidance of goals or explanations. Social-emotional integration, on the other hand, engages students in dual learning.

2. Instructional Approaches

There has been some disagreement in the early education field about which teaching strategy is most effective in integrating social-emotional content for yielding positive behavioral and academic results – formal, explicit teaching versus implicit teaching through stories, games, and emotion language. Whereas the former model would focus on directly and intentionally teaching social-emotional components, the latter model tends to focus on fostering a warm and sensitive environment through interactions, feedback, encouragement, etc. Studies that have investigated the effectiveness of both curricula found that using a direct, systematic, and intentional approach daily has proven to be the most successful. Furthermore, these explicit programs correlate to significant positive effects in both cognitive aptitude and academic outcomes [3].

Fostering healthy social-emotional environments through emotional language and implicit approaches continues to be a popular choice in early education. In one study, the connection between emotional language and social-emotional competence was explored by observing the connection between teacher's emotional language and toddler's social emotional competence [4]. According to [4]), emotional language is directly tied to emotional socialization and is integral to a child's understanding about their and other's internal state. Furthermore, when children are recipients of positive emotion language, they

are more likely to use positive emotion language themselves, yielding an increase in the expression of emotion language, prosocial behaviors, emotion tasks, and interpersonal relationships. These findings indicate the relationship between emotion language use and children's ability to interpret and respond to emotions, thus building social-emotional competence [4].

2.1. Self-Regulation

Previous research has shown that poor self-regulation can have detrimental effects on social and academic outcomes. Children with high levels of self-regulation are more engaged in learning and have lower rates of disruptive behaviors. Children with poor self-regulation, on the other hand, show higher rates of internalizing and externalizing behaviors with lower academic engagement [5]. According to [5], a child's emotional intelligence is a key component to their ability to self-regulate, and has been found to significantly improve mental, psychosomatic, and physical health. Self-awareness of emotional experiences continues to be important as children enter adolescence. One study theorized that adolescent's ability to regulate emotions was associated with positive developmental outcomes, including mental, emotional, and social health entering adulthood [6]. According to [7], in order to engage in emotion modulation in the pursuit of goals, students must not only learn how to apply emotion regulation strategies, but also have awareness of their emotional experience. This emergence of emotion regulation begins in childhood and facilitates the adolescent's ability to develop specific self-regulation strategies.

Additional research supports the notion of the relationship between self-regulation and achievement in school. According to [8], in their research, there were positive, statistically significant relations between self-regulation, self-efficacy, and sense of school connectedness in elementary students identified by their schools at "at risk" for school challenges.

Another study focusing on adolescent moral development considered how pedagogy can be used within schools as a mechanism for ethical emotions and cognitions by carefully selecting texts that elicit an emotional and empathetic response [9]. Through critical reading and discussion of these texts, researchers observed a significant increase in empathetic responding and a broader social awareness, including understanding of situational privilege and community awareness that led to greater involvement in community action [9]. A common facet between these studies is the nature of direct pedagogy to elicit emotional reactions, increase self-awareness, and build prosocial skills. Therefore, findings suggest that the most effective strategy is to implement an integrated model of both explicit and implicit approaches, whereas intentional content is embedded in responsive, sensitive, and open interactions.

2.2. Interpersonal Relationships

Interpersonal relationships, including peer-peer, teacher-child, and classroom interactions, are an important facet to early childhood development and an indicator of future academic success, social, and emotional development. While existing research emphasizes the salience of the inclusive classroom and emotion language, little research has been done regarding the specific and unique relationships between teacher-child and the importance this emotional component has on both classroom behavior and academic success ([10].

One study considered this dynamic within the preschool environment and suggests that teacher–child relationships are the ongoing proximal processes that drive children's development in early childhood classrooms [10], whereas the individual relationships in tandem with the emotional context of the classroom can influence learning, engagement, and development across domains. On the other hand, negative teacher- child relationships have the potential to lead to more problematic behaviors and are associated with lower scores in reading and math [11]. Another closely related study on interpersonal relationships studied the socialization effects on emotional competencies of adolescents by monitoring self-disclosure in peer-peer relationships. They reported that reciprocal friendships provide a training ground that tends to enhance emotional competencies. These friendships then, result in more adaptive coping as well as a greater willingness to self-disclose emotions to the friend" [12].

The common thread between existing research shows that interpersonal relationships are directly associated with levels of emotional intelligence and social competence. By extension, emotional intelligence has the potential to predict one's life outcomes along with their psychological and physical well-being ([13]. What is lacking in extant research is an examination of these skills and the impact of explicit instruction in these skills with younger children. This study sought to explore the relation between self-regulation and early school achievement (specifically literacy and numeracy) in young children in a large urban district.

3. Methodology

3.1. Participants

The participants were 38 students (14 female and 24 male, age 5-6) from two Kindergarten classes in a large urban district. Most of the students attending the school speak English as their first language, with the second highest percentage of students speaking Vietnamese at home. None of the children were receiving special education services. Table 1 provides demographic data for the 38 students.

Table 1. Demographic Data

	Gender		Age in Years		Language	
	M	F	5	6	Eng.	Other
Control	13	6	15	4	14	5
Intervention	11	8	13	6	13	6

Following obtaining parent consent, one of the two classrooms was random assigned as the intervention group and the other was assigned as the control group.

3.2. Measures

Assessments in literacy and numeracy were conducted at baseline and following intervention, using AIMS web,

which is a standardized benchmark and progress monitoring system based on direct, frequent, and continuous student assessment in literacy and numeracy [14]. The skills assessed in the literacy subtest include: letter naming fluency, letter sound fluency, phoneme segmentation fluency, and nonsense word fluency. The skills assessed in the numeracy include: oral counting, number identification, quantity discrimination, and missing number.

Additionally, self-regulation skills were assessed using the Emotional Regulation Checklist (ERC) [15]) at baseline and again following intervention. This empirically validated survey has 25 statements focused on emotional regulation and asks the respondent to select a level of agreement with each statement using a four-point Likert scale. Scores range from 0 (even with adult support, the student was not able to demonstrate this social skill) to 4 (the student is able to teach others how to demonstrate this social skill).

3.3. Intervention

Following completion of baseline assessments, those in the intervention group began to receive the integrated (explicit and implicit) lessons in emotional self-regulation for 12 weeks. These lessons were approximately 20 minutes in length and were integrated within literacy and numeracy segments of the daily schedule. Topics covered included emotion identification, what is self-regulation, and strategies for when we feel dysregulated. All activities were delivered by a licensed educator in a developmentally appropriate manner.

3. Results

To examine the relationship between emotional self-regulation (ESR) and academic outcomes in young children, several analyses were conducted. First, descriptive statistics were reported for student scores on the measures of emotional self-regulation and academic outcomes at both assessment points (see Table 2).

Table 2. Descriptive Statistics Entire Sample

Variable	Mean	SD
ESR Pre	1.42	1.0
ESR post	1.84	1.0
Literacy Pre	61.9	29.2
Literacy Post	92.7	31.6
Numeracy Pre	42.6	15.6
Numeracy Post	58.2	16.4

Next, two groups were created, those who received the intervention and those who were randomly assigned to the control group. Descriptive statistics were computed for each group (see Table 3).

To calculate growth, gain scores were created for each student. This consisted of Post-Intervention Score –

Pre-Intervention Score = Gain Score. Table 4 provides the descriptive statistics for gain scores by group.

Table 3. Descriptive Statistics By Group

Variable	Intervention		Control	
	M	SD	M	SD
ESR Pre	1.42	1.1	1.42	1.0
ESR post	2.1	0.9	1.5	0.9
Literacy Pre	64.6	28.1	59.2	30.7
Literacy Post	99.3	28.6	86.2	33.7
Numeracy Pre	44.5	12.3	40.6	18.4
Numeracy Post	68.7	13.4	57.7	19.2

Table 4. Descriptive Statistics of Gain Scores By Group

Variable	Intervention		Control	
	M	SD	M	SD
ESR Gain	1.0	0.6	0.2	0.4
Literacy Gain	34.7	16.3	25.9	9.6
Numeracy Gain	20.2	5.1	13.4	11.8

Figure 1 provides a graphic illustration of gains in ESR, literacy, and numeracy by group.

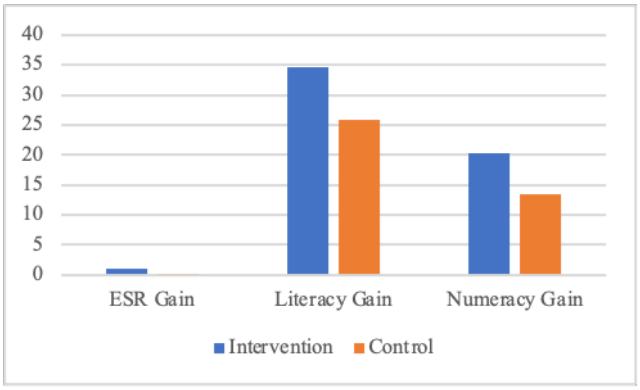

Figure 1. Gain Scores by Group

To determine if the intervention group outperformed the control group on post-intervention measures of ESR, literacy, and numeracy, independent sample t tests were computed using gain scores. When examining gains in ESR, the intervention group (1.0, 0.6) demonstrated greater growth than the control group (0.2, 0.4); $t(36)=4.84$, $p<.001$. When examining gains in literacy skills, the intervention group (34.7, 16.3) outperformed the control group (25.9, 9.6); $t(36)=2.03$, $p<.05$. When examining gains in numeracy skills, the intervention group (20.2, 5.1) outperformed the control group (13.4, 11.8); $t(36)=2.31$, $p<.05$.

Finally, to determine if ESR and academic outcomes were related to each other, bivariate correlations were computed using the entire sample. Results indicated that ESR is statistically correlated with literacy achievement ($r=.65$, $p<.01$), as well as numeracy achievement ($r=.70$, $p<.01$).

4. Discussion

One of the common threads throughout literature is the importance of integrating both implicit and explicit social-emotional teaching components for yielding the greatest behavioral and academic results [7]. Applying this

strategy in practice includes direct teaching of social-emotional components while also paying careful attention to fostering the proper classroom environment – safe, encouraging, sensitive, positive, and person-centered [4]. Utilizing direct pedagogy while modeling a responsive environment, therefore, elicits emotional reactions, increases self-awareness, builds prosocial skills, and contributes to invested learning. Children with higher levels of self-regulation tend to be more engaged in learning which results in higher academic performance [5].

Findings from this current study support the notion that higher levels of ESR are related to greater academic achievement (in early literacy and numeracy). Additionally, results from this study indicate that ESR can be taught in an integrated, developmentally appropriate manner to young elementary students of diverse backgrounds.

Although this study was short in duration (12 weeks), with a small sample size (19 per condition), findings can be interpreted statistically and serve as an impetus for further research with a larger sample size while exploring the duration of intervention that is most effective. Finally, this study yields practical, translational strategies for classroom teachers to use: (a) foster a person-centered classroom environment, (b) weave social-emotional components throughout the curriculum, (c) regularly assess social-emotional competencies and academic performance, and (d) actively communicate with administration, parents, and students to problem-solve solutions to potential limitations.

References

[1] Ashdown, D, & Bernard, D., "Can explicit instruction in social and emotional learning skills benefit the social emotional development, well-being, and academic achievement of young children? *Early Childhood Education Journal, 39*(6), 397-405. 2012.

[2] Zins, J.. Weissberg, R., Wang, M., Walberg, H., "Building academic success on social and emotional: What does the research say?" Teachers College Press. 2004.

[3] Alzahrani, M., Alharbi, M., & Alodwani, A., "The effects of social emotional competence on children academic achievement and behavioral development." *International Education Studies, 12*(12), 141-149. 2019.

[4] King, E. "Fostering toddlers' social emotional competence: Consideration of teachers' emotion language by child gender. *Early Child Development and Care, 191*(1), 2494-2507. 2021.

[5] Goodall, E., Brownlow, E., Fein, E., & Candeloro, S., "Creating inclusive classrooms for highly dysregulated students: What can we learn from existing literature?" *Education Sciences, 12*(8). 2022.

[6] Cummings, C., Lansing, A., & Houck, C., "Perceived strengths and difficulties in emotional awareness and accessing emotion regulation strategies in early adolescents." *Journal of Child and Family Studies, 31*(9), 2631-2643. 2022.

[7] Luo, L., Reichow, B., Snyder, P., Harrington, J., & Polignano, J., "Systematic review and meta-analysis of classroom-wide social emotional interventions for preschool children. *Topic in Early Childhood Special Education, 42*(1), 4-19. 2022.

[8] Wilson, K., Polite, W., Wilson, T. (2020). Exploring relations among self-efficacy, school connectedness, and self-regulation in at-risk elementary male students. *American Journal of Humanities and Social Science*, 7, 1-11.

[9] Dallacqua, A., Sheahan, A., & Davis, A., "Teaching the comic yummy to engage adolescent empathy, critical reflection, and community awareness. *Journal of Moral Education, 51*(3), 404-421. 2022.

[10] Lippard, C., La Paro, K., Rouse, H., & Crosby, D., "A closer look at teacher-child relationships and classroom emotional context in preschool. *Child and Youth Care Forum, 47*(1), 1-21. 2018.

[11] Chen, J., Jiang, H., Justice, L., lin, T, Purtelli, K., & Ansari, A., "Influences of teacher-child relationships and classroom social management on child-perceived peer social services during early school years." *Frontiers in Psychology, 11*. October 2020.

[12] Von Salisch, M., "Emotional competence and friendship involvement: Spiral effects in adolescence." *European Journal of Developmental Psychology, 15(*6), 678-693.

[13] Zheng, Y., Cai, D., Zhao, J., Yang, C., Zia, T., & Xu, T., "Bidirectional relationship between emotional intelligence and perceptions of resilience in young adolescents: A twenty-month longitudinal study. *Child and Youth Care Forum, 50*(2), 363-377. 2021.

[14] Pearson, "AIMSWeb." Pearson Assessment, New York. 2023.

[15] Shields, A., & Cicchetti, D., "Emotion regulation among school-age children: The development and validation of a new criterion Q-sort scale. *Developmental Psychology, 33*(6), 909-916. 1997.