

Students' Social and Emotional Experiences in the Classroom: How are Prosocial Efficacy and Reading Performance Related?

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Introduction

Abstract

Humans' cognitive processes accompany certain emotions; therefore, cognition cannot be explained in isolation from emotions' effects. Many scholars in social and emotional learning (SEL) believe that learners' emotional experiences explain their positive beliefs about learning and their effective cognitive strategies (Zimmerman, 2008; Zins, Bloodworth, Weissberg, & Walberg, 2007). This study adopted SEL's assumption that students' positive social experiences in a classroom and their prosocial efficacy beliefs are associated positively with students' academic achievements.

This study explored the various relations among participants' pre and post prosocial efficacy and reading levels in the Freedom Schools (FS) summer camp. The FS provides a reading curriculum during the summer vacation for students primarily from low-income families and ethnic and racial minority backgrounds. Following a pre-experimental study design, data from surveys and reading assessments (e.g., *Prosocial efficacy* and *Basic Reading Inventory*) were analyzed using the paired t-tests and correlations analysis. The results provide evidence of how students' early prosocial efficacy is related to their reading growth.

Aims of the Research

The FS camp is planned to prevent those students' summer reading loss supported by Children's Defense Fund. Kim and Quinn (2013) reported that students from low-income families and cultural minority groups tend to undergo reading loss because they may have limited educational opportunities during the summer. Participants of FS were exposed to a transformational reading curriculum, featuring culturally-relevant texts and a core emphasis on social action. We focused on prosocial efficacy (PE) beliefs, which is students' confidence in their ability to implement prosocial behaviors, such as building relationships in classrooms. The purpose of the study was to investigate how students' PE may be involved in their reading skill development in FS summer camp, which is based on group discussion and cooperative activities.

Research Questions

1. Do students experience reading loss while participating in FS?
2. Do students experience gains in prosocial efficacy while participating in FS?
3. What are the relationships among students' prosocial efficacy and their reading skills?
4. Do students with higher initial prosocial efficacy experience greater gains in their reading skills?

Method

Research Design

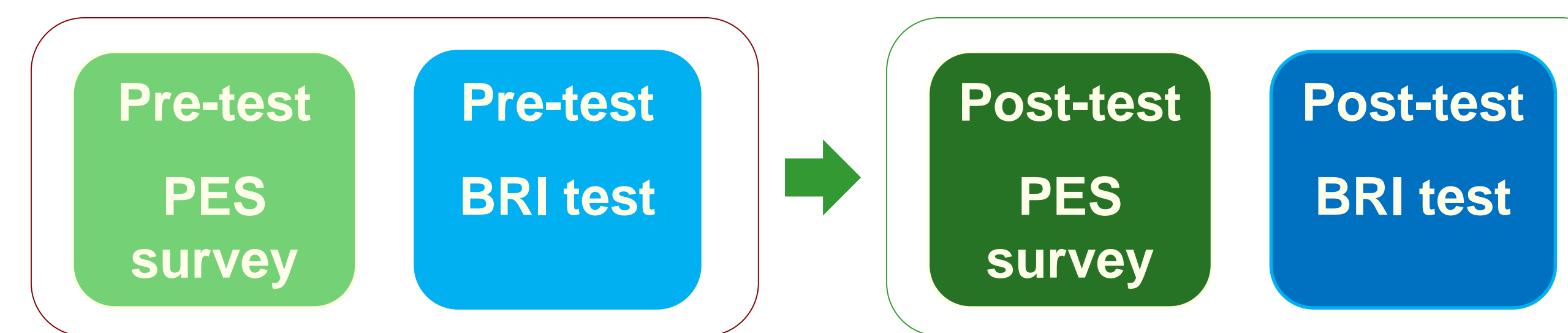


Figure 1. Pre-experimental study by repeated measures.

A pre-experimental study design was used to assess the changes in grade 1 to 8 students' prosocial efficacy and reading skills via pre- and post-test (see Figure 1). We collected the quantitative data (i.e., prosocial efficacy surveys and reading assessments) during the first and last weeks of the camp. However, there was no control group. The following survey and tests were used in the data analysis: 1) the Prosocial Efficacy Survey (PES; Roehrig, Clemons, & Norris, 2017) and 2) the Basic Reading Inventory (BRI; Johns, 2012).

Participants

For this study, the data were collected from the participants of the FS summer camp in North Central Florida from 2016 to 2018. The FS summer camp runs for six weeks from mid-Jun to July every year. All three years of the FS camps were conducted with a similar timeline; however, the books used in the curriculum changed every year. In the camp, the participants were assigned into the three-level curriculum according to their grade level (e.g., Level 1: grade 1 to 2; Level 2: grade 3 to 5, Level 3: grade 6 to 8). In each year, more than 100 students participated in the FS camp, among them more than 90% of participants were African American and most participants were eligible for free or reduced-price lunch.

Participants (N=87) were included in this study if they had parents' consent to participate in research and complete data. Table 1 shows the sample size by year and level.

Table 1
Sample Size by Year and Level

Year	FS Class Level			Total
	1	2	3	
2016	4	14	8	26
2017	8	17	1	26
2018	8	12	15	35
Total	20	43	24	87

Data Analysis

First, students' reading scores were standardized based on school grade level completed, which allowed us to combine data from grade 1-8 students in a meaningful way. Then SPSS 25 was used to conduct the analyses. Paired t-tests were used to investigate changes in prosocial efficacy and reading skills from pre- to post-test (Questions 1 and 2). Correlation coefficients of the variables were used to test the relationships between students' prosocial efficacy and reading skills at different time points (Question 3). The correlations also tested the relationship between prosocial efficacy and gains in different reading skills (Question 4).

Results

Findings

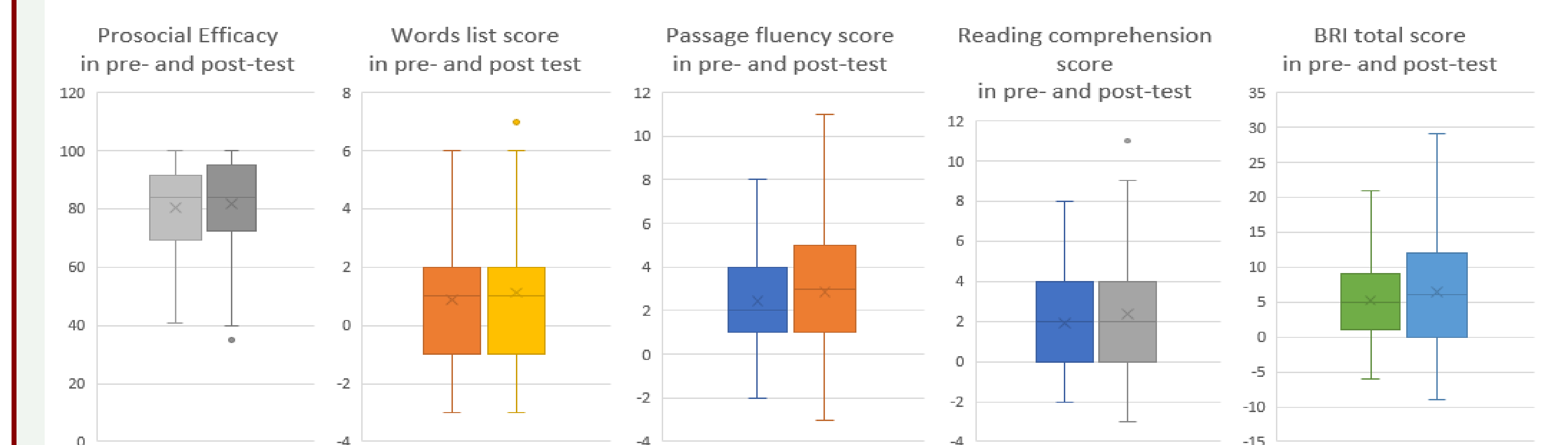


Figure 2. Box-plots of prosocial efficacy and reading skills in pre- and post-tests.

The majority of students (n=62, 71.26%) did not experience reading loss, moreover, 46 students (52.87%) showed positive reading growths compared with their initial reading scores. The paired t-test results (see Figure 2) showed a significant gain in passage fluency ($p < .01$), reading comprehension ($p < .01$) and total BRI score ($p < .01$) between pre- and post-test. There were no significant differences in students' PE and words list fluency between pre- and post test.

Correlation Table														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. PE1	1													
2. PE2	.633	1												
3. Word1	.092	-.023	1											
4. Psg1	.203	.046	.782	1										
5. Cop1	-.171	.018	.764	.969	1									
6. BRI1	-.166	.016	.894	.973	.966	1								
7. Word2	-.172	-.086	.793	.689	.637	.745	1							
8. Psg2	.226	.113	.743	.844	.799	.842	.790	1						
9. Comp2	.200	.102	.751	.840	.824	.853	.773	.980	1					
10. BRI2	.213	.107	.798	.839	.801	.860	.886	.980	.975	1				
11. W gain	.133	.171	-.262	-.096	-.151	-.177	.380	.124	.083	.191	1			
12. P gain	.115	.141	.199	.059	.023	.097	.428	.585	.552	.556	.376	1		
13. C gain	.119	.155	.252	.121	.049	.146	.468	.605	.606	.595	.360	.943	1	
14. BRI gain	.144	.183	.088	.039	-.026	.035	.505	.531	.503	.540	.667	.929	.925	1

Figure 3. The correlation matrix with p-value ($Tp < .06$, $*p < .05$, $**p < .01$, $***p < .001$).

Note. 1=pre-test, 2=post-test, PE: prosocial efficacy, Word: word list reading fluency, Psg: passage reading fluency, Comp: reading comprehension, BRI: reading test total, W gain: word list reading fluency gain, P gain: passage reading fluency gain, C gain: reading comprehension gain, T gain: total BRI reading gain.

Students' initial prosocial efficacy was significantly correlated with passage fluency and total BRI score (summing all three reading skills) at post-test. However, there were no significant correlations between PE at post-test and any other variables. Having initial greater prosocial efficacy predicted better passage reading fluency and total BRI scores at post-test. However, initial prosocial efficacy was not associated with any gains in reading skills. Therefore, other moderation or mediation variables, such as reading motivation, should be considered to help explain the observed relationships.

Key References

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