Closing the Achievement Gap

Jordan Quigley (Student)[1] and Mrs. McDaniel (Early Childhood Development Teacher)[2]
Palo Alto High School[1,2]

INTRODUCTION

Research Question: What are the outcomes and effects of an education where the children are from lower-income families, such as East Palo Alto?

BACKGROUND AND SIGNIFICANCE

Problem:

Children from lower-income families are not getting the resources and opportunities they need in order to be successful in school and beyond (Camera).

My Solution to this Problem: After-School Programs

Studies:

There have been many studies and suggestions for how to close the achievement gap or at least make it smaller (Jensen). After-school programs have been installed, outside school programs (Project Rally), and more aids installed in classrooms to assist students. There have been numerous studies that show that after-school programs and just more practice and repetition in general is one of the best ways for children to improve their reading and writing skills (Jensen).

Flaws with the current solutions:

There are definitely some flaws with these solutions. For one, there is a language barrier (Elsworth) where the parents of some students don't speak English as their first language (Cortina). Secondly, there are often times not enough room to occupy as many students as possible. Lastly, most of these after school programs rely on volunteers to tutor. There is definitely a shortage of volunteers to help tutor all of the students in the program.

My work:

In addition to these observations from Project Rally, the data obtained will be looking at the student's beginning of the year reading level and then comparing that to their reading level at the end of the year (2015-2016).

RESEARCH METHODOLOGIES

Project Rally:

Project Rally is a nonprofit organization that tutors children who are falling behind in school. Almost every child in the afterschool program is from a lower-income family, which is why they were chosen for the program (Public Innovate Schools).

Data:

The data that was collected is a pre-existing source. It was obtained from the head coordinator of Project Rally, Valentina Kao. This data is given to Project Rally from the teachers of each student who tested their reading level at the beginning of the year and then did the same test at the end of the year to see the improvement. Since this data will show the effect of afterschool programs, it is considered applied. The data is all numbers because it focuses on report cards and seeing how many reading levels the student has passed throughout the year, so it is quantitative data.

General population studied:

Students at Project Rally were studied and then data was collected by focusing on their reading test scores from the beginning of the year to the end of the year.
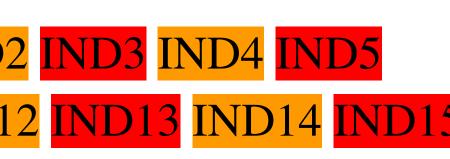
Why this sample was collected:

This sample was selected because Project Rally is an example of a place that is trying to close the achievement gap by helping tutor children from lower-income families (Schwartz). By studying the students, it was obvious that extra help and support can really go a long way in helping a student thrive in and out of the classroom (Duncan).

Scale for my data:

BEG=beginning
INST=instructional (reading with help)
IND=independent (reading by themselves)

Different Reading Levels;

BEG INST1 INST2 INST3 INST4 IND1 IND2 IND3 IND4 IND5 IND6 IND7 IND8 IND9 IND10 IND11 IND12 IND13 IND14 IND15 IND16.

DATA ANALYSIS AND RESULTS

Reading Assessment Data from Project Rally 2015-2016

Student #	Beginning of the Year Reading Level	End of the Year Reading Level	How much they have improved (according to the scale)
1	IND 2	IND 8	6
2	BEG	IND 3	7
3	BEG	IND 4	8
4	INST 1	IND 3	6
5	IND 3	IND 16	13
6	BEG	IND 4	9
7	IND 2	IND 16	14
8	INST 4	IND 16	12

Table 1

Population size: 8
Median: 8.5
Minimum: 6
Maximum: 14
First quartile: 6.25
Third quartile: 12.75
Interquartile Range: 6.5
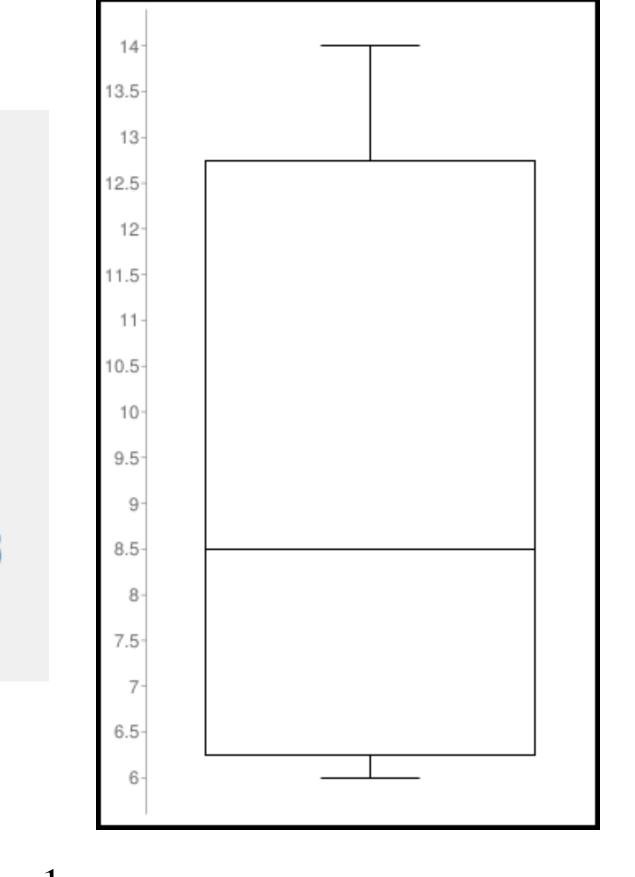**Outliers: none**

Figure 1

REFERENCES

Camera, Lauren. "Achievement Gap Between White and Black Students Still Gaping." *US News*. N.p., 13 Jan. 2016. Web. 26 Sept. 2016.

Cortina, By Regina. "1.3 Bridging Language Barriers." *Bridging Language Barriers*. School Business Affairs, 12 Feb. 2006. Web. 05 Oct. 2016.

Duncan, Arne. "Closing The Opportunity Gap." *Home*. U.S Department of Education, 18 Sept. 2012. Web. 26 Sept. 2016.

Elsworth, Stephany. "Do Language Barriers Affect Student Performance in School?" *Our Everyday Life*. N.p., 7 Mar. 2014. Web. 05 Oct. 2016.

Jensen, Eric. "Chapter 2. How Poverty Affects Behavior and Academic Performance." *How Poverty Affects Behavior and Academic Performance*. ASCD, 28 Mar. 2014. Web. 26 Sept. 2016.

Schools, Innovate Public. "Over 80% of East Palo Alto Students Aren't On Track in English and Math." *Innovate Public Schools*. Public Schools, 30 Sep. 2015. Web. 26 Sept. 2016.

Schwartz, By Katrina. "Strategies to Reach Every Student, Regardless of Language Barrier." *MindShift*. KQED News, 19 Mar. 2014. Web. 05 Oct. 2016.