**CHAPTER FOUR: RESULTS AND FINDINGS**

**Introduction**

This chapter includes a description and analysis of student data collected from responses  to the Panorama Student Survey students took related to if they felt a sense of belonging, loved, challenged and prepared, (LCP). This survey was administered to students twice a year over the course of the 2020-2022 school years. The information captured from the Panorama student survey provides insight into students’ perception of their engagement within the school community, as well as a voice in whether or not they feel loved, challenged and prepared. This is critical information for school and district leaders as they think about creating safe and welcoming learning spaces.

The central premise of student voice is that students know what is and is not

 working in their classrooms and schools, and therefore, it is incumbent on

anyone who wants to improve students’ educational experiences to attend to their

perspectives, solicit their ideas, and take their feedback seriously (Cosner et al. p.

 755, 2022).

The purpose of this causal quantitative study is to examine the relationship between student self-perceptions of their engagement in the school community and student attendance and graduation rates. Numerous studies have demonstrated the connection between student involvement and academic achievement, so it is reasonable to assume that providing students with opportunities to share their opinions can lead to improved educational results by increasing their engagement (Cosner et al., 2022). This chapter will conclude with a brief summary of the findings. The research questions and hypotheses guiding this research are addressed in this chapter.

**Quantitative Data Collection**

This section presents the results of descriptive analyses: (a) descriptive statistics for the remaining independent variables (graduation rate, attendance, and assessment scores), and (b) mean scores and standard deviations for the variable loved, challenged, and prepared. The data for this study was collected by using the Panorama Survey.

**Quantitative Results**

**Descriptive Statistics**

The descriptive statistics for the participants’ demographics are listed in Table 1. One hundred seven students participated in the study. Thirty six (33.6%) of the participants were female students and 71 (66.4%) were male students. The participants’ ethnicity was reported as follows: African American, 60 (56.1%), Caucasian 3 (2.8%), and Hispanic 44 (41.1%). Three of one hundred seven students (3, 2.8%) graduated in 2020. Thirty three of one hundred seven students (33, 30.8%) graduated in 2021. Forty four of one hundred seven students (44, 41.1%) graduated in 2022.

Table 1

*Descriptive Statistics for the Participants’ Demographics*

Variable n Percent

Gender

Female 36 33.6

Male 71 66.4

Ethnicity

African American 60 56.1

Caucasian 3 2.8

Hispanic 44 41.1

Graduation Rate

SY 2020 3 2.8

SY 2021 33 30.8

SY 2022 43 40.1

**Hypothesis Testing**

The overarching research question for this study  is as follows: What is the relationship between student self-perceptions of their engagement in the school community and student attendance and graduation rates? The question will be answered by the research questions below.

*Research Question 1.)* Do students who feel more engaged in their school community graduate at significantly higher rates than students who feel less engaged in their school community?

**H0:** There is no statistically significant difference in graduation rates for students who

feel more engaged in their school community.

**H1:** There is a statistically significant difference in graduation rates for students who feel more engaged in their school community.

An independent samples t test was conducted to determine whether there was statistically significant difference in students who graduated and their engagement in their school community. The group of graduates as denoted by “Did Student Graduate” (Graduates from 2020-2022) was the independent variable, and the Love, Challenged, and Prepared (LCP) survey scores was the dependent variable. The data were screened for outliers prior to analysis. The participants’ graduation data were standardized by group. This process did not reveal any outliers in the data.

Table 2

*Independent Samples t-test on LCP Scores by Did Student Graduate*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | 95% CI of the Difference | |
| Dependent Variable | *t* | df | Sig. | Mean Difference | SE of Difference | Lower Bound | Upper Bound |
| Did Student Graduate | 2.37 | 204 | .019 | 1.03 | 0.43 | 0.17 | 1.88 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Hypothesis Test Summary** | | | | |
|  | Null Hypothesis | Test | Sig.a,b | Decision |
| 1 | The distribution of Did Student Graduate 1=yes; 2=No is the same across categories of Favorable LCP 1=yes; 2 = no. | Independent-Samples Mann-Whitney U Test | <.001 | Reject the null hypothesis. |
| a. The significance level is .050. | | | | |
| b. Asymptotic significance is displayed. | | | | |

*Research Question 2*.) Do students who feel more engaged in their school community have statistically higher attendance rates than students who feel less engaged in their school community?

H0: There is no statistically significant difference in in-school attendance rates (ISA) for

students who feel more engaged in their school community.

H1: There is a statistically significant difference in in-school attendance rates (ISA) for students who feel more  engaged in their school community.

An independent samples t test was conducted to determine whether there was statistically significant difference in students who had higher in school attendance(ISA) rates and their engagement in their school community. The group of graduates’ (Graduates from 2020-2022) ISA was the independent variable, and the Love, Challenged, and Prepared (LCP) survey scores was the dependent variable. The data were screened for outliers prior to analysis. The participants’ graduation data were standardized by group. This process did not reveal any outliers in the data.

**Independent-Samples Mann-Whitney U Test**

**In-Seat Attendance across Favorable LCP 1=yes; 2 = no**

|  |  |
| --- | --- |
| **Independent-Samples Mann-Whitney U Test Summary** | |
| Total N | 107 |
| Mann-Whitney U | 1118.000 |
| Wilcoxon W | 1524.000 |
| Test Statistic | 1118.000 |
| Standard Error | 141.064 |
| Standardized Test Statistic | .085 |
| Asymptotic Sig.(2-sided test) | .932 |

*Research Question 3.)* Is there a statically significant difference in Black and Hispanic students’ self-perceptions of feeling engaged in their school community?

H0: There is no statistically significant difference in Black and Hispanic students’ self-perceptions of feeling engaged in their school community.

H1: There is a statistically significant difference in Black and Hispanic students’ self-perceptions of feeling engaged in their school community.

An t test was conducted to determine whether there was statistically significant difference in Black and Hispanic students LCP results and their engagement in their school community. Both groups was the independent variable, and the Love, Challenged, and Prepared (LCP) survey scores was the dependent variable. The data were screened for outliers prior to analysis. The participants’ race data were standardized by group. This process did not reveal any outliers in the data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **One-Sample Statistics** | | | | |
|  | N | Mean | Std. Deviation | Std. Error Mean |
| Favorable LCP 1=yes; 2 = no (Black) | 60 | 1.25 | .437 | .056 |
| Favorable LCP 1=yes; 2 = no (Hispanic) | 44 | 1.30 | .462 | .070 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **One-Sample Test** | | | | | | | |
|  | Test Value = 0 | | | | | | |
| t | df | Significance | | Mean Difference | 95% Confidence Interval of the Difference | |
| One-Sided p | Two-Sided p | Lower | Upper |
| Favorable LCP 1=yes; 2 = no (Black) | 22.174 | 59 | <.001 | <.001 | 1.250 | 1.14 | 1.36 |
| Favorable LCP 1=yes; 2 = no (Hispanic) | 18.619 | 43 | <.001 | <.001 | 1.295 | 1.16 | 1.44 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **One-Sample Effect Sizes** | | | | | |
|  | | Standardizera | Point Estimate | 95% Confidence Interval | |
| Lower | Upper |
| Favorable LCP 1=yes; 2 = no (Black) | Cohen's d | .437 | 2.863 | 2.286 | 3.434 |
| Hedges' correction | .442 | 2.826 | 2.257 | 3.390 |
| Favorable LCP 1=yes; 2 = no (Hispanic) | Cohen's d | .462 | 2.807 | 2.142 | 3.464 |
| Hedges' correction | .470 | 2.758 | 2.105 | 3.403 |
| a. The denominator used in estimating the effect sizes.  Cohen's d uses the sample standard deviation.  Hedges' correction uses the sample standard deviation, plus a correction factor. | | | | | |

Based on the results of this data, the researcher rejected the null hypothesis. There is a statistically significant difference in Black and Hispanic students’ sense of belonging as measured by the LCP.