Unmasking Village Green Virtual's COVID-19 Closure Evidence-Based Experience

Part 1: Measures of Distance Learning Sustainability

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"Three Rules of Work:

Out of clutter find simplicity.
From discord find harmony.
In the middle of difficulty lies opportunity."

Albert Einstein (2010).
"The Ultimate Quotable Einstein", p.480,
Princeton University Press

Cover photo: Masked VGV Lion mascot designed for the Class of 2020 and manufactured in the school's 3-D printing lab.

Summary of Major Findings

- The difference between Closure average attendance (89.0%) and Pre-Closure average attendance (90.3) was not statistically significant (p = .08401) at the p < .05 level. The overall attendance for the complete 2019-2020 180-day school year was 90.1%.

- The average attendance percent during the 54-day Closure and during the 126-day Pre-Closure were higher than the similar time frames of both previous years (2018-2019 and 2017-2018).

- The 218 students completed 68,979 externally validated Edgenuity online activities during the 54-day VGV school Closure. This total significantly exceeded the number of activities completed during the same 54-day time period in the two previous school years: 46,301 in 2018 and 54,816 in 2017.

- There was a positive increase in students' feelings toward their distance learning experience between the Mid-Closure and End-of-Closure surveys (increased from 90.4% to 94.5%). Students who responded with "poor" or "very poor" decreased from 9.6% to 5.5% between the Mid-Closure and End-of-Closure surveys.

- When asked about which of three re-opening models they would prefer, 32.7% of the students would like to attend school full time as it was before Closure; 41.8% of the students wanted a hybrid model where half the time is in school face-to-face and the other half of time is distance learning from home; and, 25.5% of the students wanted to continue with distance learning full time from home.

- Sixty percent of the students felt they had learned as much (or more) distance learning during Closure than they did attending school every day.

- Eighteen percent of the students reported that their homelife was negatively affected with frequent stressful situations during the day during Closure.

- From the Mid-Closure Survey, 95.3% of the students reported they had "little to no" technology issues. From the End-of-Closure Survey, that percentage decreased from 95.2% to 90.9%.

- The 2019-2020 school year of COVID-19 Closure had the highest number of Edgenuity activities completed compared to the two previous years for the respective time frames of Closure and Pre-Closure.

- When asked if the special report cards sent out every two weeks during Closure helped motivate students, one out of three (32.7%) students agreed or strongly agreed.

- VGV calculates a Customer Satisfaction Rating (CSR) whereby the students are treated as customers and the VGV instruction is the service. From the Mid-Closure Survey, the CSR was 90.4% and increased to 94.5% on the End-of-Closure Survey.

- The perception from students that they received enough support from all of their teachers increased from 55.5% at Mid-Closure to 79.5% at the End-of-Closure.

- A total of 715 Edgenuity courses were completed during Closure from a population of 217 students. However, the courses were started before Closure. But, the total number does indicate that there was productivity occurring from distance learning during Closure.

Introduction

On Friday March 13, 2020, Rhode Island's Governor Gina Raimondo announced she was closing Rhode Island K-12 schools statewide due to the COVID-19 pandemic. Until further notice, educating Rhode Island's students would now be done by "distance learning." The week of March 16 would be a vacation week for students and teachers (it would replace the April vacation and give schools' administration some planning time, albeit the pretty short notice). The official start of school closure would be Monday, March 23. Eventually, in April, the Governor made the decision to keep schools closed for the remainder of the 2019-2020 school year. Rhode Island schools had to dramatically change the way students would be taught in a very short period of time—an unprecedented experience for all educators across the state. With the scheduled 180th day for Village Green Virtual Public Charter High School (aka: Village Green Virtual or simply VGV), the school's closure due to COVID-19 would consume 54 instructional days. The "Virtual" in the school's name refers to a fully virtualized curriculum—unlike "virtual schools," VGV students are required to physically attend school every day for face-to-face with their teachers.

VGV, located in urban downtown Providence, Rhode Island, first opened its doors on September 4, 2013. The school was chartered to develop and implement a four-year high school program of study using a full e-curriculum delivery system. In *Inventing School: The Bricks and Mortar Asynchronous e-Learning RotoFlex Blended Learning Model* (Butler, 2016), I presented an unprecedented transparent look at our first three years of operation beginning with the initial conception by Dr. Robert Pilkington, Founder and Superintendent (Pilkington, 2012), through our first graduating class. I included discussion of the many trials and tribulations experienced during the development of a very unique school model—Rhode Island's first fully blended learning "bricks and mortar" school using the e-courseware product, Edgenuity, for VGV's full program of study.

The students' assigned courses and virtual desktop are accessible 24/7 — 365 days a year anywhere in the world that there is internet access. The Edgenuity video teacher is the primary deliverer of content. The VGV model has reshaped teaching in that the VGV teacher's role is part data analyst and skill gap interventionist—it is the teacher's job to help their students successfully progress through their Edgenuity e-courses. VGV students quickly become acclimated to online learning in the first few weeks when they begin in Grade 9

All Edgenuity courses are competency based. Students cannot progress to the next lesson unless proficiency has been demonstrated by achieving a minimum grade of 80% on lesson quizzes. All courses are designed with a framework consisting of several Units that each contain several lessons with each lesson containing several activities. Every lesson has a quiz, every Unit has a Unit Test, and every course has a Cumulative Exam.

The Edgenuity platform provides real-time student performance data that includes: course start date, date of first graded activity, course end target date, number of days off task, number of minutes off task during the day (i.e., idol time), the target for the percent of course that should be completed, the actual percent of course completed, and the current grade in the course. Every VGV teacher and administrators has an educator account and has access to this student data 24/7 from their smart devices, laptop, etc.

The VGV model was built with a technology infrastructure for distance learning from Day 1. As previously noted, the students' Edgenuity curriculum and their virtual desktop are accessible 24/7 — 365 days a year anywhere in the world they have internet connectivity. There was no need to distribute hundreds or even thousands of Chromebooks during VGV's 54-day COVID-19 related school closure as many schools/districts had to. And more importantly, VGV students are well accustomed to asynchronous online learning. However, what was new for students, was the daily use of Google Meet or Google Hangout for synchronous learning with their peers and teachers.

VGV students, having to complete all of their courses in the school's program of study online, are arguably best positioned for distance learning (DL) during the COVID-19 school closure. But,

Could VGV's students perform as well or better in DL as they did in pre-closure?

Could the teaching and learning be sustainable working from home over the 54 days?

To address these questions, extensive data was collected every day for 54 instructional days starting on March 23, 2020 (the first day of DL) through June 17th (the last day of the school year—Day 180). Unlike any other school in Rhode Island, VGV's use of a full e-curriculum delivery system with the extensive real-time student performance data available, we could very accurately quantify the number of activities completed by students on a daily basis. Further, most of the data is not self-reported—it's reported recorded and reported by Edgenuity. In addition to the quantitative data, two student surveys were administered during closure—one midway, and one at the end. The purpose of the surveys were to glean student perceptions of their distance learning experiences. The following report presents the research and findings of VGV's COVID-19 closure student performance with regards to sustainability over the 54 days.

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1. Measures of Distance Learning Sustainability

"Sustainability takes forever. And that's the point."
— William McDonough

One of our major concerns raised during VGV's planning for the mandated COVID-19 related school closures statewide was whether students and teachers could maintain the same productivity level as that achieved during pre-closure. Prior to the start of distance learning on March 23, 2020, we contacted Edgenuity to request custom daily reports on the number of activities being completed by each VGV student. Subsequently, we received daily reports for the entire 54 days of closure.

Four measurements of VGV's distance learning (DL) would be used to build the dataset for analyses that would compare closure and pre-closure student performance: Student Attendance; Edgenuity Activities Completed; Course Completions; and Student and Educator Engagement/Feedback. The latter category include two administrations of a student survey—one midway of the 54 days, and a final one near the very end of closure which coincided with the end of the school year. The four measures of distance learning sustainability are shown in Figure 1-1.

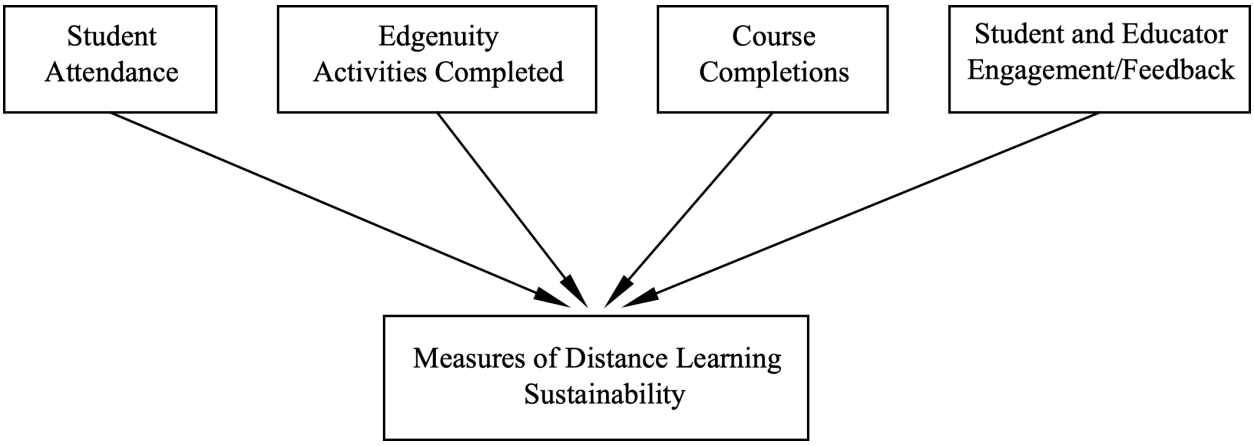


Figure 1-1. Measures for assessing the sustainability of a Distance Learning Model.

I also decide that it would be important to compare the performance measurement for the 2019-2020 school years to the previous two school years (i.e., 2018-2019 and 2017-2018). In order to minimize statistical distortion due to differences of rollout at the very beginning of every school year such as new students and new teachers becoming acclimated with the Edgenuity platform, students enrolling late or transferring out, class start dates beginning at

different times, I eliminated all of the instructional days prior to October 1, 2019 from the 3-year comparison analyses. So, the study of the two previous school years would be based on the time frames for the 2019-2020 school year designated as Pre-COVID-19 (97 instructional days) and COVID-19 Closure (54 instructional days) shown in Figure 1-2. August 20, 2019 was the first day of VGV's 2019-2020 school year which meant the first 29 instructional days for each of the three years were eliminated from the comparisons.

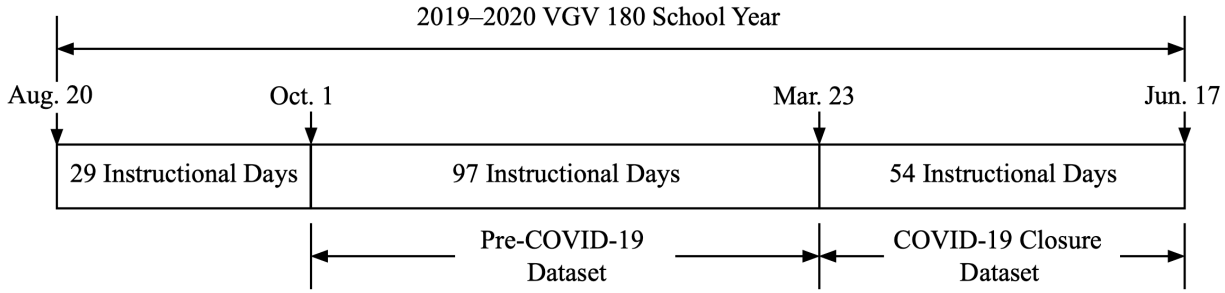


Figure 1-2. Definition of dataset time frames for the distance learning analyses

1.1 Student Attendance

The average attendance for the entire 180-day 2019-2020 school year was 90.1%.

The percent comparisons between Pre-Closure and Closure for each of the three separate years are shown in Table 1-1. Note from Table 1-1 that the 2019-2010 school year had the highest attendance rates for both the Pre-Closure (90.34%) and Closure (89.00%) time frames. Further, as noted in Figure 1-3**, there was no statistical significance between the 90.34% and 89.00% at the p < .05 level with regards to student attendance which supported sustainability.** However, statistical significance was found for both the 2018-2019 school year (Figure 1-4) and the 2017-2018 school year (Figure 1-5) meaning that there was a significant drop in average attendance percent from Pre-Closure to Closure.

Figure 1-6 (97-Day Pre-Closure) and Figure 1-7 (Closure) show the three year Attendance comparisons. In both Figures, the 2019-2020 school year had the highest attendance rates for the respective time frames.

Table 1-1. Pre-Closure vs Closure Attendance Percent Comparisons

School Year	97 Day Attendance (%) Snapshot (Pre-Closure)	54 Day Attendance (%) Snapshot (Closure)	Attendance Difference (%) Between Time frames	Refer to Figure Number
2019 – 2020	90.34	89.00	– 1.34	Figure 1-3
2018 – 2019	87.45	78.09	– 9.36	Figure 1-4
2017 – 2018	87.37	81.40	– 5.97	Figure 1-5
3-Year Comparisons	Figure 1-6	Figure 1-7	NA	NA

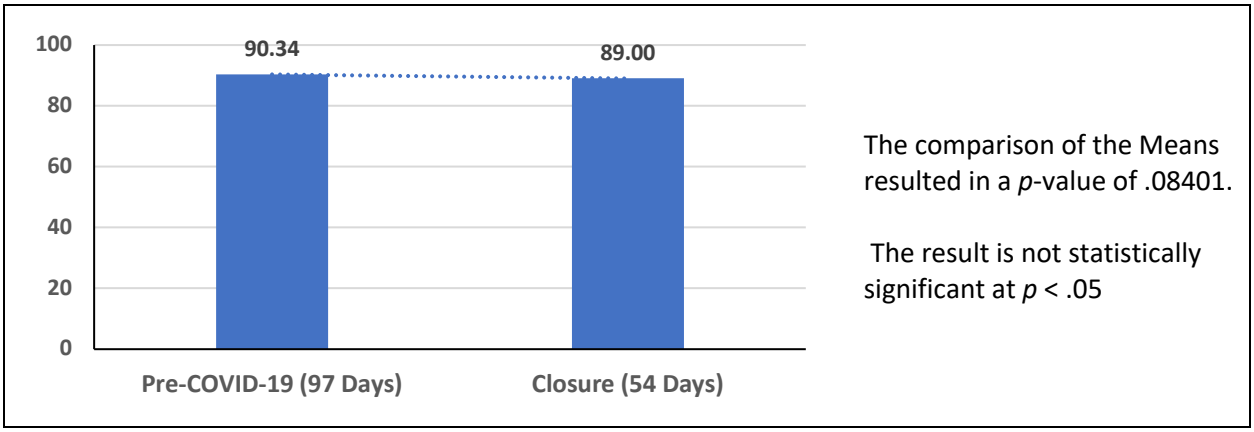


Figure 1-3. 2019-2020 Attendance (%) Comparison Between Pre-Covid-19 and COVID-19 Closure

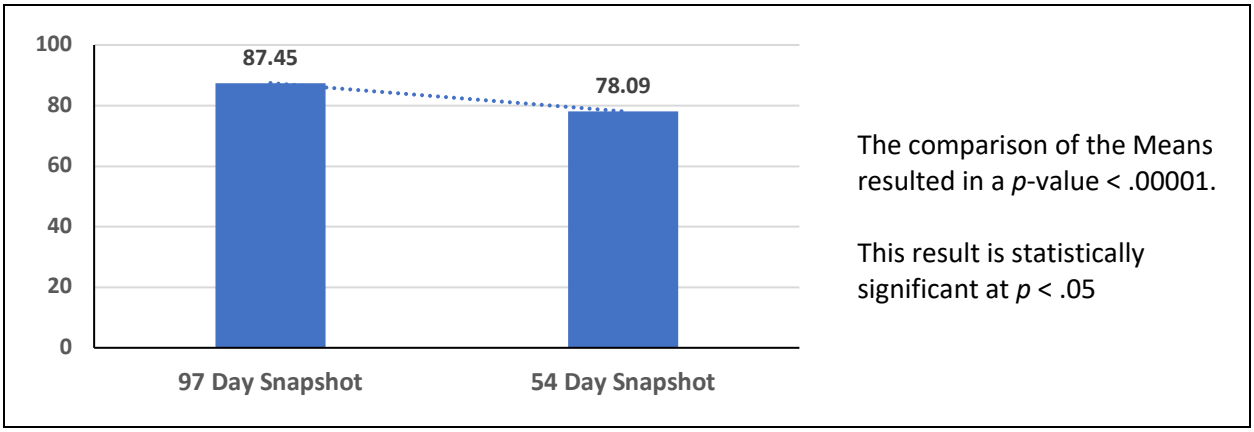


Figure 1-4. 2018-2019 Attendance (%) Comparison Between Pre-Covid-19 and COVID-19 Closure Time Periods (97 and 54 days)

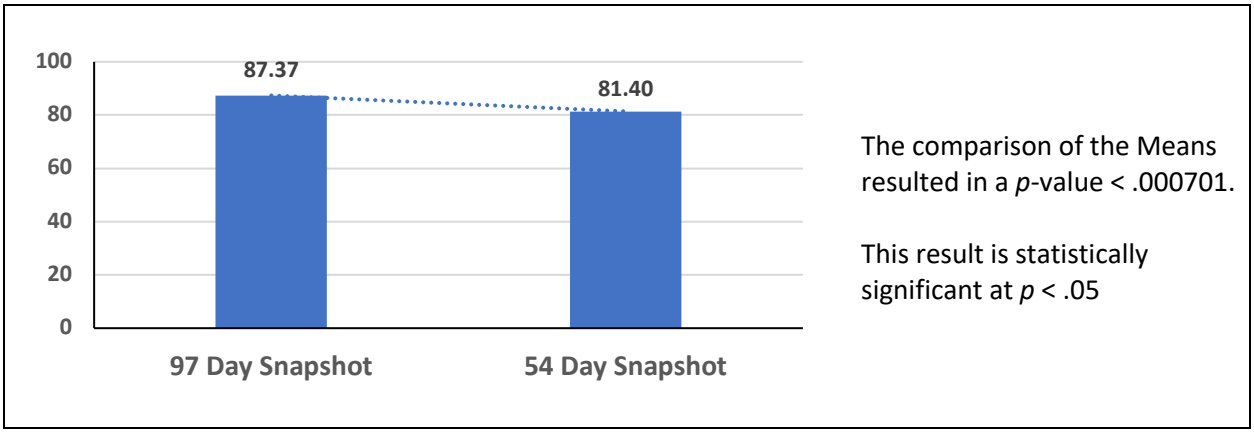


Figure 1-5. 2017-2018 Attendance (%) Comparison Between Pre-Covid-19 and COVID-19 Closure Time Periods (97 and 54 days)

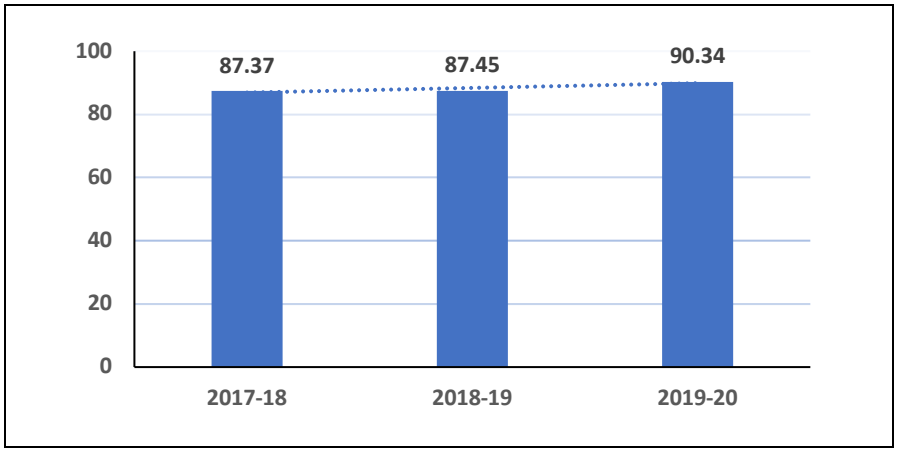


Figure 1-6. 97 Instructional Day Attendance (%) Snapshot – Pre-COVID-19 Closure: Three Year Comparison

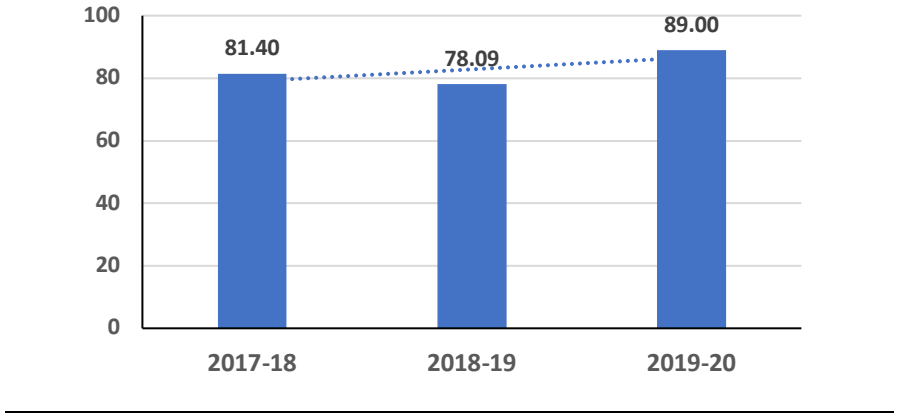


Figure 1-7. 54 Instructional Day Attendance (%) Snapshot – COVID-19 Closure: Three Year Comparison

1.2 Edgenuity Activities Completed

The total number of Edgenuity recorded activities completed by 218 VGV students across the entire 180-day 2019-2020 school year was 266,901 activities. Refer to Table 1-2.

Table 1-2. 2019-2020 Comparison between Prior DL and During DL Edgenuity Activities Completed.

Data Collection Window	Number of Students	Dates	Total Activities completed	Number of Instructional Days	Activities Completed per Day per Student
Prior DL	218	9-3-2019 to 3-23-2020	197,922	117	7.8
During DL	218	3-23-20 to 6-17-20	68,979	54	5.9
		Total:	**266,901**		

Unlike any other school in Rhode Island, VGV has the ability to accurately report every Edgenuity activity completed by every student. Edgenuity activities include lesson activities such as warmup exercises, viewing instruction via videos, writing prompts, as well as assessments such as quizzes, unit tests, and cumulative exams. For efficiency of retrieving schoolwide data daily, we requested and received daily reports from Edgenuity for every day during Closure. We also requested and received activities completed for both the 2018-2019 and 2017-2018 school years for 3-year comparison analyses. The results for the three years are shown in Table 1-3 (2019-2020), Table 1-4 (2018-2019) and Table 1-5 (2017-2018).

In each table, two groups were studied. One group (top row) included all VGV students in all of the Learning Centers (LC) for the set of analyses. In other words, Grades 9-12. The other group (bottom row) considered only Grades 9-11 in the same type of analyses. The Grade 12 students were excluded in the analyses because their program of study contains courses that are outside of the Edgenuity platform (e.g., Capstone and Senior Writing) so the activities are not counted by Edgenuity. And, unlike Grades 9-11, the seniors are allowed to work at any pace.

In each Table: 1-3, 1-4, and 1-5 for the three different school years; and, with both groups in each of the tables, **The 2019-2020 year of COVID-19 Closure had the highest number of Edgenuity activities completed compared to the two previous years for the respective time frames.**

Table 1-3. 2019 – 2020 Total Activities Completed per Time Frame

Total Edgenuity Activities Completed During Designated Time Period:	Number of Students	2019 – 2020 Oct. 1, 2019 – Mar. 13, 2020 (97 instructional days from Day 30 to Oct 1)	2019 – 2020 Mar. 23, 2019 – June 17,2020 (Last 54 instructional days)
Including all VGV students in Edgenuity. (LCC, LC1, LC2, LC3, LCR)	218	141,807	68,979
LCC, LC1, LC2, and LC3 Students only (Excluding LCR Seniors)	**174**	**136,478**	**58,084**

Table 1-4. 2018 – 2019 Total Activities Completed per Time Frame

Total Edgenuity Activities Completed During Designated Time Period:	Number of Students	2018 – 2019 Oct. 2, 2018 – Mar. 13, 2019 (97 instructional days From Day 30 to Oct 2)	2018 – 2019 Mar. 13, 2019 – June 4, 2019 (Last 54 instructional days)
Including all VGV students in Edgenuity. (LCC, LC1, LC2, LC3, LCR)	233	113,963	46,301
LCC, LC1, LC2, and LC3 Students only (Excluding LCR Seniors)	**154**	**83,753**	**39,304**

Table 1-5. 2017 – 2018 Total Activities Completed per Time Frame

Total Edgenuity Activities Completed During Designated Time Period:	Number of Students	2017 – 2018 Oct. 2, 2017 – APR. 12, 2018 (97 instructional days From Day 30 to Oct 2)	2017 – 2018 Mar. 2, 2018 – June 4, 2018 (Last 54 instructional days)
Including all VGV students in Edgenuity. (LCC, LC1, LC2, LC3, LCR)	217	126,573	54,816
LCC, LC1, LC2, and LC3 Students only (Excluding LCR Seniors)	**174**	**97,941**	**44,253**

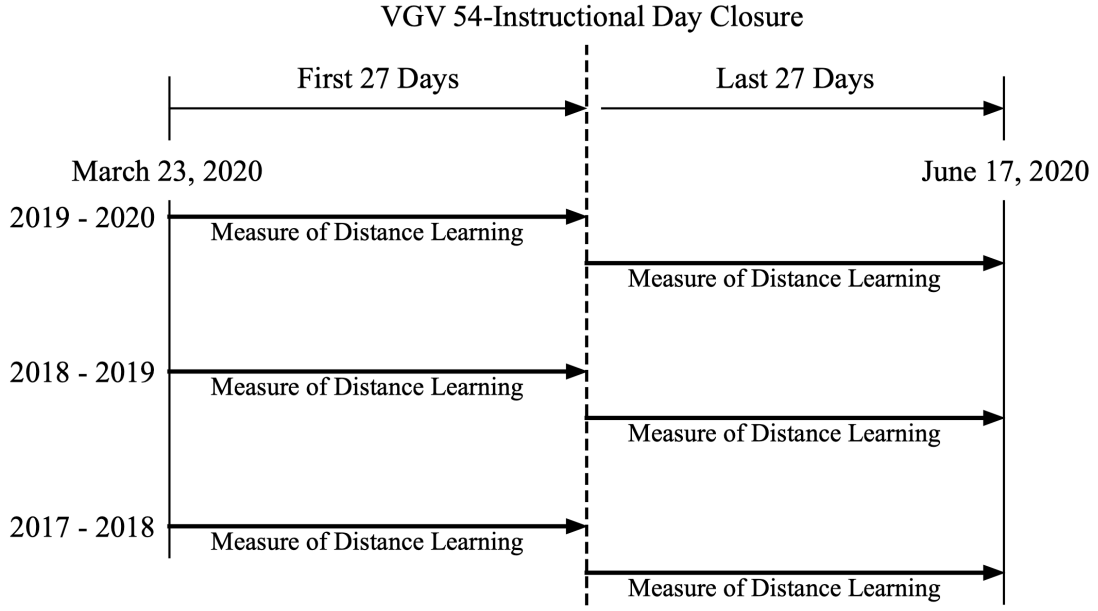
1.2.1 54-Instructional Day Closure Edgenuity Activity Ramp-Down Analyses

In Tables 1-2, 1-3, 1-4, and 1-5, a calculation of the average number of activities completed per day per student revealed the same pattern for all three years: Students completed more activities per day prior to Closure than during Closure. This "ramp-down" of student productivity is typical at the end of each year for a majority of schools. Attendance often drops, the weather is getting warmer, field trips, graduations, students and teachers are tired from a long year—lots of reasons for the ramp-down of activity—especially this year with the ramifications of the drastic change to distance learning for all schools.

So, I decided to compare (1) Average Attendance, (2) Average Activities Completed per Student per Day, and (3) Total Activities Completed for just the last 54 instructional days (i.e., the length of Closure) of 2019-2020 against the previous two school years based on the theoretical model I created shown in Figure 1-8. I split the 54 days into two parts. Knowing that the data showed a ramp-down in productivity in all three years (2019-2020, 2018-2019, and 2017-2018). How did the degree of ramp-downs compare between the three years?

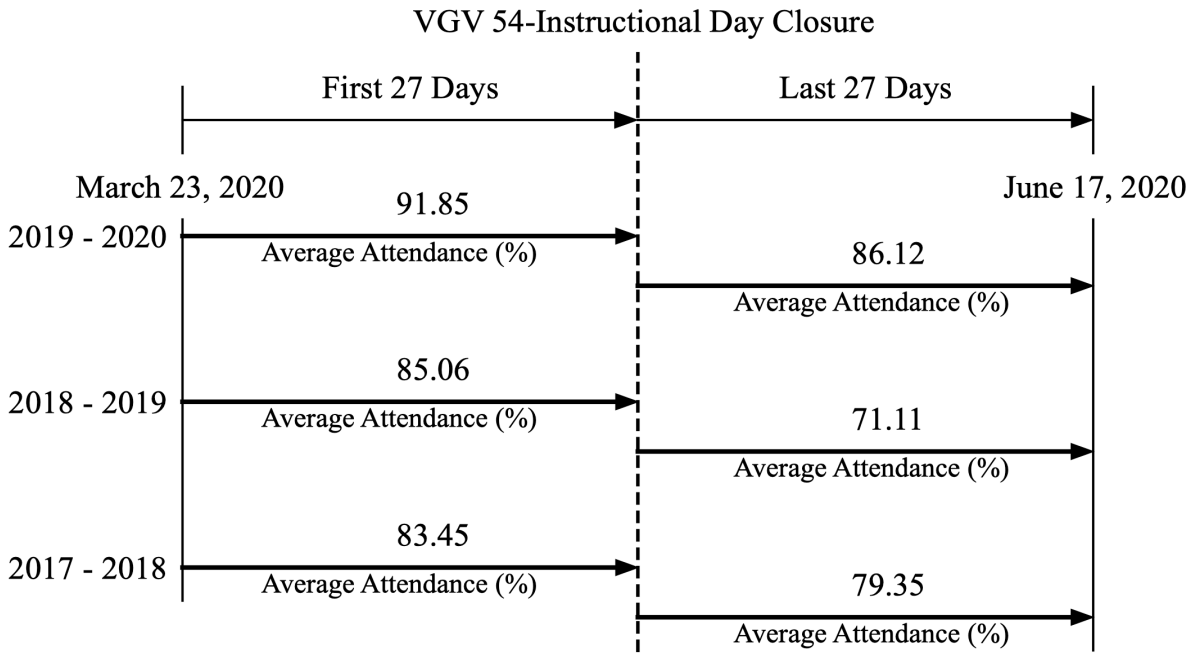
As shown in Figures 1-9, 1-10, and 1-11, in all three years, the pattern of a ramp-down in the respective measures was found. However, the 2019-2020 performance in all three cases, 2019-2020 outperformed the two previous years for both the first 27 days and the last 27 days of Closure.

Going forward, a VGV goal should be to continue the positive 3-year trend of flattening the curve i.e., straightening the end-of-the year "Ramp-Down Effect."



Theoretical Model of Expected Year-End Ramp-Down

Figure 1.8



Three -Year Comparison of Year-End Ramp-Down of Average Attendance (%)

Figure 1-9.

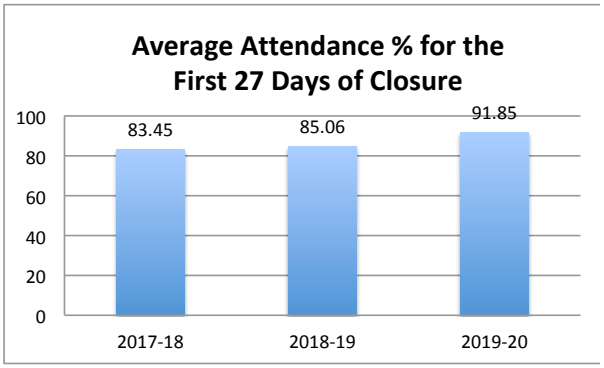


Figure 1-9a

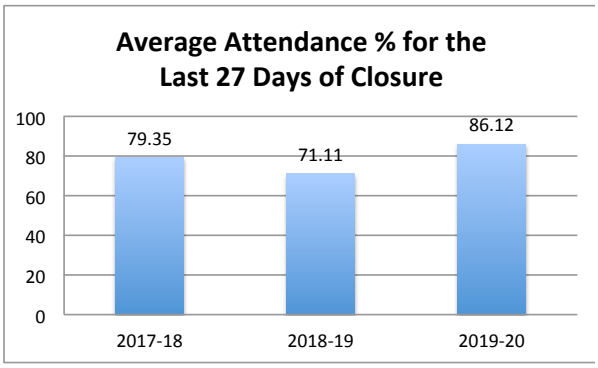
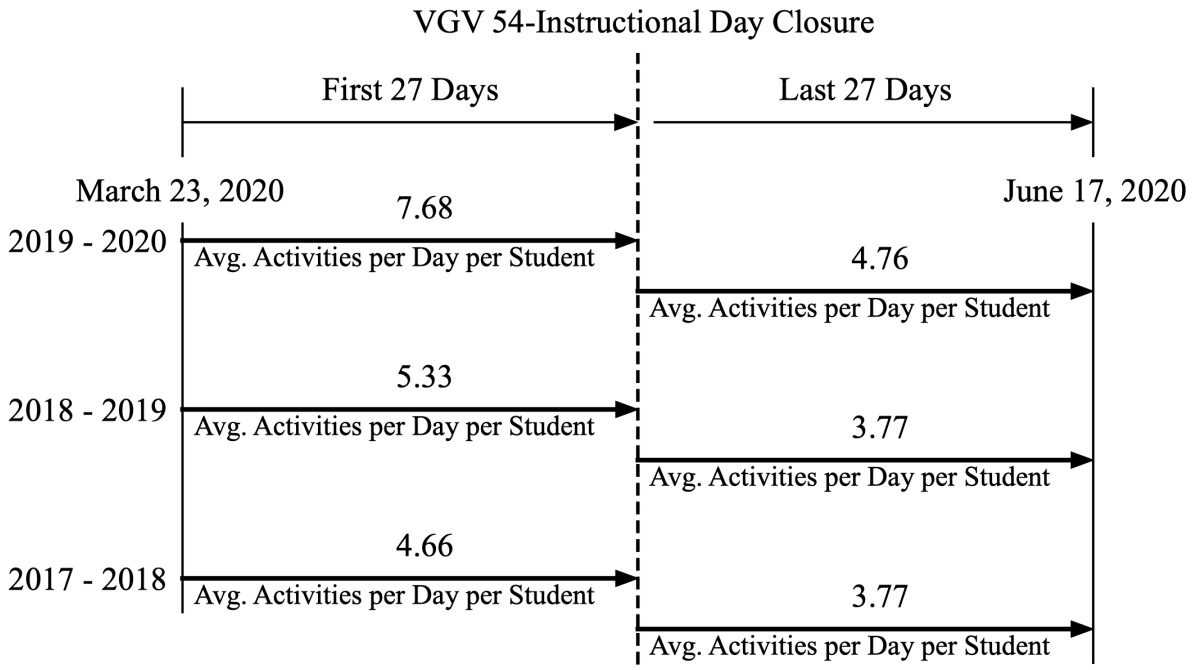


Figure 1-9b.



Three Year Comparison of Year-End Ramp-Down of
Average Activities Completed per Student per Day

Figure 1-10.

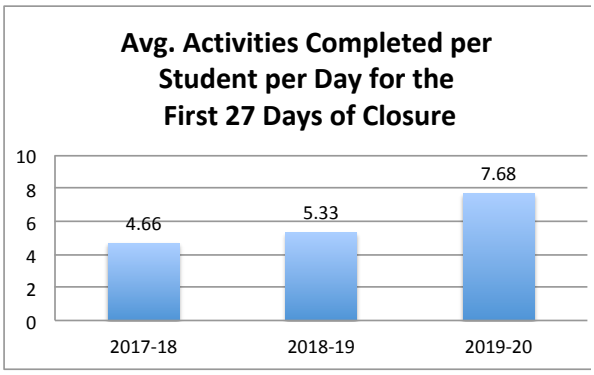


Figure 1-10a.

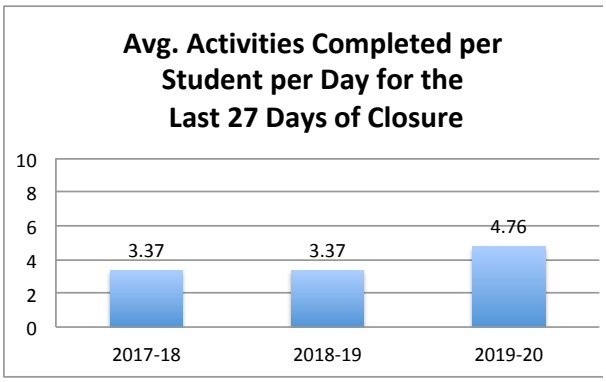
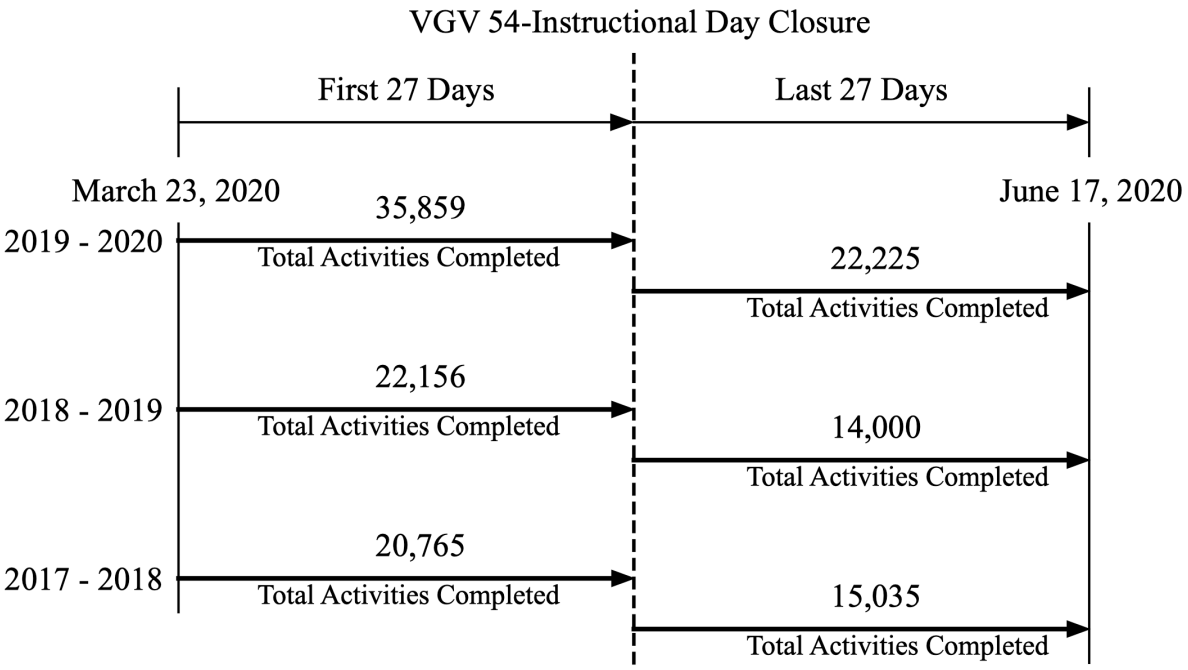


Figure 1-10b.



Three -Year Comparison of Year-End Ramp-Down of Total Activities Completed

Figure 1-11.

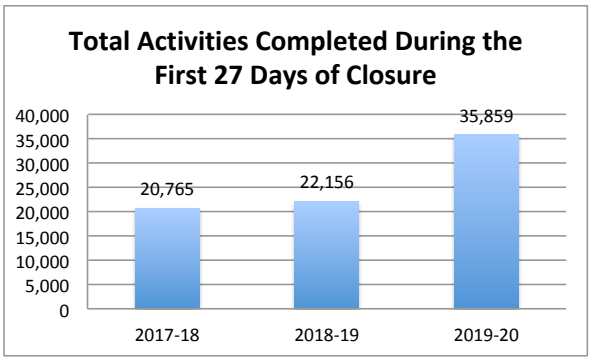


Figure 1-11a.

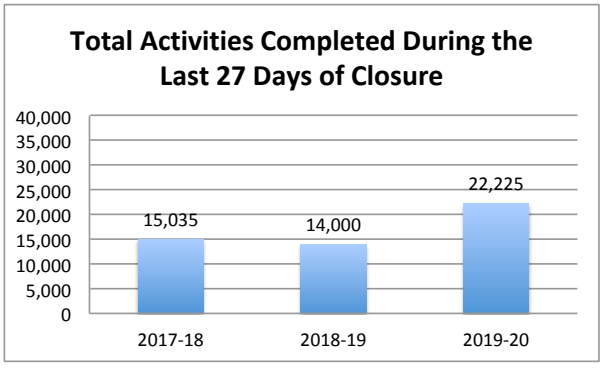


Figure 1-11b..

1.3 Edgenuity Course Completions

Of the four measures of distance learning sustainability defined in Figure 1-1, Edgenuity Course Completions is arguably the most problematic measure to use as a determining factor in assessing student performance between Pre-Closure and Closure. For example, some courses in VGV's RotoFlex Blended Learning Model (Butler, 2016, pp. 215-217) have a fixed pace whereas other courses allow students to move at *any pace*. Additionally, students are expected to complete 100% of the course content. If at the end of a semester or school year, a course has not been completed then the course remains open until the student completes it. All courses are competency-based so students are not allowed to move forward until competency has been demonstrated. Further, teachers have the autonomy to create their own assignments to supplement, or in some cases, supplant the Edgenuity content. The VGV students' overall grade is comprised of 60% from Edgenuity and 40% from the teacher generated graded assignments.

A total of 715 Edgenuity courses were completed during Closure from a population of 217 students. However, the courses were started before Closure. But, the total number does indicate that there was productivity occurring from distance learning.

What I did look at was a comparison of the Edgenuity ELA and Math course completions between semesters for Grades 9-11 for the 2019-2020 school year. The results are shown in Table 1-6.

A close look into the data revealed that there were issues with the math teaching and learning during Closure for both Grades 10 and 11. Evidence supporting issues were found in the Student Surveys (discussed later in this report). Refer to Q3 (Table 1-12) and Q7 (Table 1-20). Corrective actions have already been taken for the start of the 2020-2021 school year.

Table 1-6. Combined ELA and Math Course Completion Percentages for the 2019-2020 School Year.

		% of Courses Completed	
Cohort	**Grade**	**Semester 1**	**Semester 2**
2019	9	93.2	84.8
2018	10	97.0	64.4
2017	11	88.1	61.8

1.4 Student and Educator Engagement/Feedback

"Learn from yesterday, live for today, hope for tomorrow.
The important thing is not to stop questioning."

— Albert Einstein

Several years ago, as a participant in Rhode Island's former School Accountability for Learning and Teaching (SALT) school visit initiative, I was a member of a team of educators assigned to visit and assess a public high school located in rural Rhode Island. One of my assignments was to observe a math class. During my observation, I noticed a student in the back row doing quite a lot of writing. He would look up at the teacher for a few seconds then move his pencil for a couple of minutes—seemingly totally engaged in note taking. The pattern continued for quite a while. I managed to approach from behind and saw that it wasn't math note taking or equations he was trying to work out. It was truly the work of a gifted artist—a headshot drawing of a beautiful female. I asked the student if she had a name. He looked up at me, smiled, and answered "Algebra."

Why was this student disengaged from the lesson being taught?:

Was the content too rigorous?
Was the content too easy to the point that the student was bored?
Was the student just not interested in school?
Was it because he could get away with it?

Who best to answer these questions?

Too often, perceptions of classrooms and schools are through the eyes of the teachers and administrators. Seldom do we look through the eyes of the students.

"It is a narrow mind which cannot look at a subject from various points of view."
— George Eliot, *Middlemarch*

I came across an interesting quote in Norman Atkins' foreword to *Driven by Data: A Practical Guide to Improve Instruction* by Paul Bambrick-Santoyo, 2010. "If there's teaching going on, but the students aren't learning, is it really teaching?" (p. xiv). It seems to me students can help answer this question. The results of a $45 million three-year study by the Bill and Melinda Gates Foundation listed student evaluations of teachers as one of the three most useful measures of teacher effectiveness (Layton, 2013).

I've spent nearly seventeen years studying student engagement, teacher best practices, school climate and culture, teacher effectiveness, students' math problem solving ability, and

many other areas relative to teaching and learning—research conducted in three Rhode Island high schools and a high school program associated with Rhode Island College (I was an adjunct math instructor for 10 years in the program). The deliverables of all of this educational research include five published books (this report might be part of a book number six), hundreds of white papers and technical reports, several op-eds., and a number of conference presentations. The bottom line, I've killed a lot of trees and burned up more than a few laptops along the way.

Of all of the various quantitative and qualitative methods employed in my research, those that have involved student voice (e.g., interviews, essays, surveys) have been the most powerful sources of data with regards to capturing the phenomenon being researched. In particular the use of student surveys, if properly constructed, administered, and analyzed, can help drive real positive change. And, best of all, it doesn't take a PhD.

> "Student feedback is one of the most valuable, but untapped, teacher resources in the typical classroom"
> — Dr. Butler, *Inventing School*, p. 129

1.4.1 Can You Handle the Truth? The Student Surveys

Two snapshots of VGV student attitudes towards their distance learning experience (LX) via anonymous surveys were planned and administered—one approximately 27 instructional days into Closure which began on March 23, 2020 and a final one administered during the last three days of the school year:

1. Mid-Closure Anonymous Student Survey – nine questions
   (administration window: April 28–May 4)

2. End-of-Closure Anonymous Student Survey – 12 questions
   (administration window: June 15–17)

The final dataset was comprised of VGV grades 9-11. Grade 12 students (i.e., class of 2020) who graduated on June 11, 2020 were excluded from the dataset used for this study in order to reduce statistical distortion. Reasons include:

- Most grade 12 students had either completed or were near completion of their Edgenuity courses which greatly negatively skews "activities completed per student per day" calculations.
- Graduation was held on June 11 but grades 9, 10, and 11 worked through June 17.
- The grade 12 students take a Capstone course and a Senior Writing course—both outside of the Edgenuity platform and thus activities completed in these courses are not externally tracked.
- The Closure occurring during the last 54 days of the school year (47 days for the seniors) coincided with students preparing for graduating and their transition to post-graduate plans so their mindset is in a different place than students in the lower grades.

Three Main Objectives of the Surveys:

- To assess the overall feelings/attitudes of students toward their distance learning experience midway through the anticipated length of school closure and at a point near the end of the school year.

- To assess the students' perception of distance learning support from their teachers midway through the anticipated length of school closure and at a point near the end of the school year.

- To assess what degree has technology been a detriment to the students' learning midway through the anticipated length of school closure and at a point near the end of the school year.

Survey Question/Choices Structures

The web-based surveys consisted of a total of nine multiple-choice type questions on the Mid-Closure Survey and a total of 12 multiple-choice questions (original nine plus three added) on the End-of-Year Survey. Possible responses to Question numbers 2, 8, 9, and 12 were based on a 5-point Likert Scale. The survey was constructed using a Google Form so that the responses could be automatically organized in a spreadsheet when received. The survey link was provided on all 218 students' Edgenuity dashboard. The survey did not request the student's first or last name and thus was considered anonymous.

The questions and possible answer choices are provided in the following:

Q1. What LC are you assigned to? Order of choices: LCC; LC1; LC2; LC3; LCR

Q2. How would you rate your overall experience with Distance Learning? Order of choices: Very Poor; Poor; Fair; Good; Excellent

Q3. On average, how many times each week have you had face-to-face online contact with your Math teacher? Order of choices: One Day; Two Days; Three Days; Four Days; Five Days; N/A I do not have a Math course.

Q4. On average, how many times each week have you had face-to-face online contact with your ELA teacher? Order of choices: One Day; Two Days; Three Days; Four Days; Five Days; N/A I do not have a ELA course.

Q5. On average, how many times each week have you had face-to-face online contact with your Science/Electives teacher? Order of choices: One Day; Two Days; Three Days; Four Days; Five Days; N/A I do not have a Science or Elective course.

Q6. On average, how many times each week have you had face-to-face online contact with your History/Electives teacher? Order of choices: One Day; Two Days; Three Days; Four Days; Five Days; N/A I do not have a History or Elective course.

Q7. Of the following content areas, which ones do you feel you have not had enough support from your teacher? (select all that apply) Order of choices: Math; ELA; Science; History; Electives; N/A I get enough support from all of my teachers?

Q8. On average, how often have you had technology issues each week with your online coursework or meetings with teachers? Order of choices: Never; Rarely; Sometimes; Often; Always

Q9. Do you feel that receiving the extra report card every two weeks during this Distance Learning helps to motivate your learning? Order of choices: Strongly Disagree; Disagree; Neither Agree nor Disagree; Agree; Strongly Agree

Q10. Now that you have experienced Distance Learning, going forward, what would you prefer your school week would look like? Order of choices: a) I wish it would be back

to what it was before Distance Learning where I attended VGV every day with my teachers; b) I would like to spend approximately half the week attending school and the rest of the time; c) I would prefer to do mostly all Distance Learning from home and perhaps only attend VGV one day every week as long as I stayed on pace with all of my courses.

Q11. Which of the following best describes your learning experience this year? Order of choices: a) I feel I have learned just as much (or more) during Distance Learning from home as I did when I was attending VGV every day; b) I feel I did not learn as much during Distance Learning from home as I did when I was attending VGV every day.

Q12. I feel that Distance Learning created stressful situations in my home life during the day. Order of choices: Never; Rarely; Sometimes; Often; Always

1.4.2 Survey Results

Q2. How would you rate your overall experience with Distance Learning?

From Table 1-7, Table 1-8, and the summary in Table 1-9, there was a positive increase in students' feelings toward their distance learning experience between the Mid-Closure and End-of-Closure surveys (increased from 90.4% to 94.5%). Students who responded with "poor" or "very poor" decreased from 9.6% to 5.5% between the Mid-Closure and End-of-Closure surveys.

Table 1-7. Mid–Closure Student Responses (%) to Survey Q2 (*n* = 104)

Response	Number of Respondents	Percent of Respondents	Collapsed Categories	Collapsed Categories
Excellent	21	20.2	57.7	90.4
Good	39	37.5		
Fair	34	32.7	32.7	
Poor	8	7.7	9.6	9.6
Very Poor	2	1.9		
Totals:	**104**	**100.0**	**100.0**	**100.0**

Table 1-8. End–of–Closure Student Responses (%) to Survey Q2 (*n* = 55)

Response	Number of Respondents	Percent of Respondents	Collapsed Categories	Collapsed Categories
Excellent	8	14.5	69.0	94.5
Good	30	54.5		
Fair	14	25.5	25.5	
Poor	3	5.5	5.5	5.5
Very Poor	0	0		
Totals:	**55**	**100.0**	**100.0**	**100.0**

Table 1-9. Comparison Between the Mid– and End–of–Closure Student Responses to Q2

Response	Mid-Closure Survey Responses to Q2	End–of–Closure Survey Q2 Responses	% Difference Between Surveys
Excellent	90.4	94.5	+ 4.1
Good			
Fair			
Poor	9.6	5.5	– 4.1
Very Poor			
Totals:	**100.0**	**100.0**	

In Figure 1-12, using the data from Tables 1-7 and 1-8, a graphical comparison between student responses for Q2 on the Mid-Closure and End–of–Closure Surveys was created. The percent of students who responded with "poor" or "very poor" decreased between the Mid-Closure and End-of-Closure surveys from 9.6% to 5.5%.

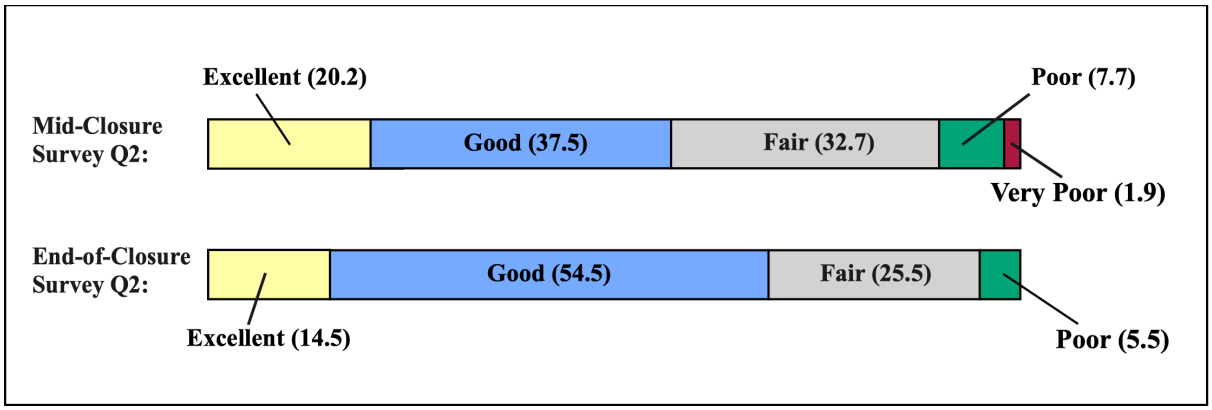


Figure 1-12 Comparison between student responses for Q2 on the Mid-Closure and End-of-Closure Surveys

The Customer Satisfaction Rating (CSR)

One of the most important indicators of a successful school environment for teaching and learning is the perception (i.e., attitudes and feelings) of the students toward their learning experience. Such qualitative data can define a "Customer Satisfaction Rating (CSR)" where the students are the customers. Unfortunately, it's a metric that plays little or no part in most school accountability systems. Since Year 1, VGV has administered it's EoY (End of Year) Survey each year for purposes of assessing VGV student attitudes and feelings toward their learning

experience (LX). The data is used to identify areas where improvements may be needed with regards to school climate and culture.

For both student surveys administered, a "Customer Satisfaction Rating (CSR)" was calculated from the responses to the surveys' Q2 and is presented in Table 1-10. The CSR is determined by adding the percentage of students who responded with a rating of Excellent, Good, and Fair on Q2 for both surveys (refer to Figure 1-12). The rating is based on a 100% scale.

Table 1-10. Calculation of the Customer Satisfaction Rating (CSR)

Time Period	Excellent + Good + Fair (%)	Customer Satisfaction Rating (CSR) %
Mid-Closure	20.2 + 37.5 + 32.7	**90.4**
End-of-Closure	14.5 + 54.5 + 25.5	**94.5**

As shown in Table 1-10, the CSR percentages for both surveys were exceptionally high (> 90%). But even more significant is that the End-of-Closure CSR was 4.1% higher than the Mid-Closure CSR. One would have thought that by the end of Closure, students would have had enough and more apt to be less satisfied with their experience—perhaps they were just glad it was finally over. Whatever the reason, the CSR percentages were high.

Note: Justification of including "Fair" in the CSR calculation is based on its center position on the 5-point Likert Scale which is the neutral position and has common labels, depending on the particular question. Labels for the center scale position include:

Fair;
Neither Agree nor Disagree;
Neither Satisfied nor Dissatisfied
Neutral;
Undecided;
sometimes

Therefore, it is reasonable to assume that a student, if truly dissatisfied with their LX, would respond by selecting either "Poor" or "Very Poor."

The relationship between CSR, attendance, number of activities completed per student per day, and total activities completed, was explored with the results presented in Table 1-11. The "ramp-down" effect that almost always occurs at the end of a school year discussed earlier is definitely evident; however, the analyses did show that the productivity for Closure in 2019-2020 was great than the two previous years (Figures 1-9, 1-10, and 1-11).

Table 1-11. Customer Satisfaction Rating (CSR), Average Attendance, and Average Number of Activities Completed per Day

Time Period	Customer Satisfaction Rating (CSR) %	Average Attendance (%)	Average Number of Activities Completed per Student per Day	Total Activities Completed
First half of Closure (27 days)	90.4	91.9	7.7	35,859
Second half of Closure (27 days)	94.5	86.1	4.8	22,225

Q3. On average, how many times each week have you had face-to-face online contact with your Math teacher?

As shown in Table 1-12 for the Mid-Closure Survey, a disturbing finding was that, of the 97 students who have math courses, nearly half (48.5%) responded that, on average, they had only one day of face-to-face contact with their math teacher. However, in Table 1-13 for the End-of-Closure survey, that percentage decreased from 48.5% to 27.1%.

Table 1-12. Mid–Closure Student Responses (%) to Survey Q3 (*n* = 104) pertaining to frequency of contact with students' math teacher.

Number of Times Met Per Week	Number of Respondents	Percent of Respondents	Percent of Respondents with Math Courses (*n* = 97)
One Day	47	45.2	48.5
Two Days	22	21.2	22.7
Three Days	12	11.5	12.4
Four Days	9	8.7	9.3
Five Days	7	6.7	7.2
NA	7	6.7	
Totals:	**104**	**100.0**	**100.0**

Table 1-13. End–of–Closure Student Responses (%) to Survey Q3 (*n* = 55) Pertaining to frequency of contact with students' math teacher.

Number of Times Met Per Week	Number of Respondents	Percent of Respondents	Percent of Respondents with Math Courses (*n* = 48)
One Day	13	23.6	27.1
Two Days	14	25.5	29.2
Three Days	11	20.0	22.9
Four Days	6	10.9	12.5
Five Days	4	7.3	8.3
NA	7	12.7	
Totals:	**55**	**100.0**	**100.0**

Q4. On average, how many times each week have you had face-to-face online contact with your ELA teacher?

As shown in Table 1-14 for the Mid-Closure Survey, a disturbing finding was that of the 100 students who have ELA courses, 43.0% responded that, on average, they had only one day of face-to-face contact with their ELA teacher. In Table 1-15 for the End-of-Closure survey, that percentage decreased from 43.0% to 39.2%.

Table 1-14. Mid–Closure Student Responses (%) to Survey Q4 (*n* = 104) pertaining to frequency of contact with students' ELA teacher.

Number of Times Met Per Week	Number of Respondents	Percent of Respondents	Percent of Respondents with ELA Courses (*n* = 100)
One Day	43	41.3	43.0
Two Days	19	18.3	19.0
Three Days	18	17.3	18.0
Four Days	10	9.6	10.0
Five Days	10	9.6	10.0
NA	4	3.8	
Totals:	**104**	**100.0**	**100.0**

Table 1-15. End–of–Closure Student Responses (%) to Survey Q4 (*n* = 55) pertaining to frequency of contact with students' ELA teacher.

Number of Times Met Per Week	Number of Respondents	Percent of Respondents	Percent of Respondents with ELA Courses (*n* = 51)
One Day	20	36.4	39.2
Two Days	9	16.4	17.6
Three Days	11	20	21.6
Four Days	6	10.9	11.8
Five Days	5	9.1	9.8
NA	4	7.3	
Totals:	**55**	**100.0**	**100.0**

Q5. On average, how many times each week have you had face-to-face online contact with your Science/Electives teacher?

As shown in Table 1-16 for the Mid-Closure Survey, a disturbing finding was that of the 62 students who have science courses, 41.9% responded that, on average, they had only one day of face-to-face contact with their science teacher. In Table 1-17 for the End-of-Closure survey, that percentage increased from 41.9% to 53.1%.

Table 1-16. Mid–Closure Student Responses (%) to Survey Q5 (*n* = 104) pertaining to frequency of contact with students' Science/Electives teacher.

Number of Times Met Per Week	Number of Respondents	Percent of Respondents	Percent of Respondents with Science Courses (*n* = 62)
One Day	26	25.0	41.9
Two Days	7	6.7	11.3
Three Days	17	16.3	27.4
Four Days	3	2.9	4.8
Five Days	9	8.7	14.5
NA	42	40.4	
Totals:	**104**	**100.0**	**100.0**

Table 1-17. End–of–Closure Student Responses (%) to Survey Q5 (*n* = 55) pertaining to frequency of contact with students' Science/Electives teacher.

Number of Times Met Per Week	Number of Respondents	Percent of Respondents	Percent of Respondents with Science Courses (*n* = 32)
One Day	17	30.9	53.1
Two Days	2	3.6	6.3
Three Days	6	10.9	18.8
Four Days	4	7.3	12.5
Five Days	3	5.5	9.4
NA	23	41.8	
Totals:	**55**	**100.0**	**100.0**

Q6. On average, how many times each week have you had face-to-face online contact with your History/Electives teacher?

As shown in Table 1-18 for the Mid-Closure Survey, a disturbing finding was that of the 74 students who have history courses, exactly half the students (50.0%) responded that, on average, they had only one day of face-to-face contact with their history teacher. In Table 1-19 for the End-of-Closure survey, that percentage decreased from 50.0% to 45.9%.

Table 1-18. Mid–Closure Student Responses (%) to Survey Q6 (*n* = 104) pertaining to frequency of contact with students' History/Electives teacher.

Number of Times Met Per Week	Number of Respondents	Percent of Respondents	Percent of Respondents with History Courses (*n* = 74)
One Day	37	35.6	50.0
Two Days	11	10.6	14.9
Three Days	12	11.5	16.2
Four Days	7	6.7	9.5
Five Days	7	6.7	9.5
NA	30	28.8	
Totals:	**104**	**100.0**	**100.0**

Table 1-19. End–of–Closure Student Responses (%) to Survey Q6 (*n* = 55) pertaining to frequency of contact with students' History/Electives teacher.

Number of Times Met Per Week	Number of Respondents	Percent of Respondents	Percent of Respondents with History Courses (*n* = 37)
One Day	17	30.9	45.9
Two Days	4	7.3	10.8
Three Days	6	10.9	16.2
Four Days	3	5.5	8.1
Five Days	7	12.7	18.9
NA	18	32.7	
Totals:	**55**	**100.0**	**100.0**

Q7. Of the following content areas, which ones do you feel you have not had enough support from your teacher? (select all that apply)

From Table 1-20 data on the Mid-Closure Survey, with regards to student perceived teacher support with their online distance learning experience, 55.5% responded "I get enough support from all of my teachers." On the End-of-Closure Survey, the 55.5% increased to 74.5%.

These findings strongly support a conclusion that, overall, VGV teacher online support has not been an issue for the vast majority of students across all content areas. However, math in Grades 10 and 11 were identified as areas of concern based on the data relative to activities completed per student per day and student reported support from their math teacher during Closure.

Note: Although possible, no specific student, teacher, or LC has been identified relative to these findings.

Table 1-20. Survey Data for Assessing Student Perception of Teacher Support

Content Area	Mid-Closure: Not Enough Support (%)	End-of-Closure: Not Enough Support (%)
Math	21.2	12.7
ELA	10.6	9.1
Electives	10.6	5.5
History	7.7	3.6
Science	0.01	1.8

	Mid-Closure:	End-of-Closure:
I get enough support from all of my teachers (%)	55.5	74.5

Q8. On average, how often have you had technology issues each week with your online coursework or meetings with teachers?

As shown in Table 1-21 for the Mid-Closure Survey, 95.2% (57.7% + 25.0% + 12.5) of the respondents had little to no technology issues. In Table 1-22 for the End-of-Closure survey, that percentage decreased from 95.2% to 90.9%.

Table 1-21. Mid-Closure Data for Assessing the Students' Experience with Technology Issues (*n* = 104)

Possible Responses	Number of Responses	Percent of Total Respondents	Collapsed Categories Percent
Never	60	57.7	95.2
Rarely	26	25.0	
Sometimes	13	12.5	
Often	2	1.9	4.8
Always	3	2.9	
Total:	**104**	**100.0**	**100.0**

Table 1-22. End-of-Closure Data for Assessing the Students' Experience with Technology Issues (*n* = 55)

Possible Responses	Number of Responses	Percent of Total Respondents	Collapsed Categories Percent
Never	10	18.2	90.9
Rarely	30	54.5	
Sometimes	10	18.2	
Often	4	7.3	9.1
Always	1	1.8	
Total:	**55**	**100.0**	**100.0**

Q9. Do you feel that receiving the extra report card every two weeks during this Distance Learning helps to motivate your learning?

From Table 1-23 for the Mid-Closure Survey, approximately one in four students (24.1%) found the extra report card was a motivating factor in their learning. However, from Table 1-24 for the End-of-Closure Survey, the 24.1% increased to 32.7% or approximately one in three students found the extra report card was a motivating factor in their learning.

A future analysis could investigate the academic performance of the motivated students during DL with regards to activity and course completion rates.

Table 1-23. Mid-Closure Data for Assessing the Extra Report Card as a Motivator (*n* = 104)

Possible Responses	Number of Responses	Percent of Total Respondents	Collapsed Categories Percent
Strongly Disagree	39	37.5	76.0
Disagree	16	15.4	
Neither Agree nor Disagree	24	23.1	
Agree	9	8.7	24.1
Strongly Agree	16	15.4	
Totals:	**104**	**100.0**	**100.0**

Table 1-24. End-of-Closure Data for Assessing the Extra Report Card as a Motivator (*n* = 55)

Possible Responses	Number of Responses	Percent of Total Respondents	Collapsed Categories Percent
Strongly Disagree	9	16.4	67.3
Disagree	13	23.6	
Neither Agree nor Disagree	15	27.3	
Agree	13	23.6	32.7
Strongly Agree	5	9.1	
Totals:	**55**	**100.0**	**100.0**

Q10. Now that you have experienced Distance Learning, going forward, what would you prefer your school week would look like?

Table 1-25. Students' Preference for Learning Model

Full Time Attending School	Hybrid: Half In-Person/Half Distance Learning	Full Time Distance Learning
I wish it would be back to what is was before Distance Learning where I attended VGV every day with my teachers.	I would like to spend approximately half the week attending school and the rest of the week Distance Learning from home.	I would like to do all or most of by learning from home as long as I stayed on pace.
32.7%	41.8%	25.5%

Q11. Which of the following best describes your learning experience this year?

Table 1-26. Students' Preference for Learning Model

I feel I did not learn as much during Distance Learning from home as I did when I was attending VGV every day	I feel I have learned just as much (or more) during Distance Learning from home as I did when I was attending VGV every day.
40.0%	60.0%

Q12. I feel that Distance Learning created stressful situations in my home life during the day.

Table 1-27. Frequency of Distance Learning Negatively affecting Home Life (*n* = 58)

Possible Responses	Number of Responses	Percent of Total Respondents	Collapsed Categories Percent
Never	14	25.5	81.9
Rarely	21	38.2	
Sometimes	10	18.2	
Often	6	10.9	18.2
Always	4	7.3	
Totals:	**55**	**100.0**	**100.0**

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