



INVESTIGATION OF THE INFLUENCE OF SCHOOL AND STUDENT-BASED FACTORS
ON SUSTAINABLE ACADEMIC PERFORMANCE AT SIR ARTHUR LEWIS COLLEGE,
SAINT LUCIA

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By Sancha Meliat

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INVESTIGATION OF THE INFLUENCE OF SCHOOL AND STUDENT-BASED FACTORS
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SAINT LUCIA

This Thesis by Sancha Meliat has been approved by the committee members below, who recommend it be accepted by the faculty of Unicaf University in partial fulfillment of requirements for the degree of

Doctor of Philosophy in Education

Thesis Committee:

Dr Augustine Terfot Ngwana, Supervisor

Dr Eleni Papadopoulou, Chair

Dr Specioza Asiimwe, External examiner

Dr Omotayo Adewale Awodiji, Internal examiner

ABSTRACT

INVESTIGATION OF THE INFLUENCE OF SCHOOL AND STUDENT-BASED FACTORS ON SUSTAINABLE ACADEMIC PERFORMANCE AT SIR ARTHUR LEWIS COLLEGE, SAINT LUCIA

Sancha Meliat

Unicaf University

The Sir Arthur Lewis Community College (SALCC), is St. Lucia's lone indigenous tertiary level institution, emphasizing almost unrestricted access once qualification requirements are met. These requirements exclude assessing readiness for college, giving the misconception that meeting entry requirements equates to preparedness. Some students transition successfully but many fail to adjust and decline in academic performance. This study empirically explores key transition challenges and factors affecting sustainable academic performance at SALCC and identifies strategic interventions for addressing the problem of academic performance decline. Objectives include identifying student and school-based factors on students' sustainable academic performance and examining the extent of the influence of student and school-based factors on students' sustainable academic performance. Wahlberg's Model of Educational Productivity informs the identification of student-and school-based factors, potentially impacting learners' performance.

Mixed methods, primarily employing a case study and incorporating questionnaires, observational schedules, interviews, and document analysis were used. The sample size of 939 participants included, 180 current students utilized for statistical analysis, 709 past students, 11

lecturers, 1 staff of the SALCC Students Services Unit, 30 secondary school teachers, 3 guidance counsellors, and 5 employers of past students were utilized for qualitative analysis. Stratified random sampling, with convenience and purposive sampling were used as appropriate. Statistical analysis, employing correlation and logistic regression was used for quantitative data, while thematic and descriptive statistical analysis was used for qualitative data.

Among the findings, prior academic performance had the most significant influence on students' sustainable academic performance. New school environment, teacher expectations, and SALCC expectations showed a positive correlation with academic performance. Motivation, ability to adjust, perception of contact hours and keeping up with demands had a positive correlation with academic performance while prior academic performance, attending class regularly and access to support had a negative correlation. Age, gender, comfort level working in groups or individually and completing assignments on time showed mixed results. Lack of a structured systemic transition program and inadequacy of resources were identified. Key recommendations include development of a structured transition program, setting learning success indicators, effective scheduling of courses and providing adequate classroom and personnel resources to assist students.

Keywords: Student-based, performance, sustainable, transitioning, pedagogy.

Declaration

I declare that this thesis has been composed solely by myself and that it has not been submitted, in whole or in part, in any previous application for a degree. Except where stated otherwise by reference or acknowledgment, the work presented is entirely my own.

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Dedication

This dissertation is dedicated to my daughter Brielle Meliat and my father Eustace Meliat who is battling terminal cancer.

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This assignment could not have been completed without the cooperation and assistance of several people. Firstly, I would like to give thanks to the Almighty God with whom all things are possible.

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List of Abbreviations

SALCC	Sir Arthur Lewis Community College
DAGRI	Department of Agriculture
DTEMS	Department of Technical Education and Management Studies
DASGS	Department of Arts, Science and General Studies
GPA	Grade Point Average
CUMGPA	Cumulative Grade Point Average
SDT	Self Determination Theory
CLT	Cognitive Load Theory
CSEC	Caribbean Secondary Education Certificate
AD	Associate Degree
BFPM	Big Five Personality Model
AP	Absent with Approval
AW	Absent without Approval
NG	No Grade
CEE	Common Entrance Examination

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CHAPTER 1: INTRODUCTION

In educational institutions, a learner's success and that of the institution is measured by academic performance. However, some students are of the misconception that because they have gained entry-level requirements for secondary and post-secondary learning institutions, they have the competency to engage in college-level work. Thus, they are unprepared for the complex social and emotional challenges and academic adjustment required to function at that level. Consequently, some students find ways to make this transition seamlessly and adapt to college life, while others feel inundated, frustrated, and unable to manage the vicissitudes that come with transitioning and eventually drop out of school (Harris-Reeves et al., 2022). As such, Krist (2020) opines that a disconnect between secondary and post-secondary education results in an increasing number of high school graduates being unprepared for college-level work. Krist (2020) argues that it is not the curriculum, but student expectations, teacher expectations, and professor expectations that appear to be misaligned. While curricular alignment in terms of content leads to performance and achievement, study skills, support of family and friends, guidance, and personal accountability, also play a fundamental role in student success.

The sustainability of academic performance at the tertiary level requires the necessary commensurate adjustments in attitude, commitment, work ethic, conceptual skills, aptitude, support from family and other related influences. Thus, Conley (2018) supports the view, that students need to start acquiring, early in their educational experiences, the knowledge, cognitive skills, and habits of mind essential for the sustainability of their academic performance, into the tertiary level. Additionally, any effort aimed at the improvement of students' achievement would not only require a review of the curriculum, but also consideration of the influence of students, administration, faculty, and teaching methods on overall performance success. In this regard, the

present study investigates the factors contributing to the unsustainable academic performance of a significant number of students at the Sir Arthur Lewis Community College, Saint Lucia.

Background

The Sir Arthur Lewis Community College (SALCC) is Saint Lucia's lone full-time tertiary level institution, owned and operated by the Government of Saint Lucia. The institution is named after one of the nation's two Nobel Laureates, Sir Arthur Lewis (Economics). Known as one of the prestigious learning institutions in the Caribbean, the Sir Arthur Lewis Community College was established under the Education Act No. 8 of 1985 and services a national population of approximately 170,000, as well as other Caribbean territories. The institution provides educational opportunities to pursue two-year Associates Degrees in five departments namely, Arts Science and General Studies (DASGS), Health Sciences (DHS), Technical Education and Management Studies (DTEMS), Agriculture (DAGRI), and Teacher Education and Educational Administration (DTEEA). These departments provide a variety of technical and academic programs from which prospective students can choose. The programs offered at the SALCC are oversubscribed annually. This study focuses on the Departments of Arts Science and General Studies (DASGS), Technical Education and Management Studies (DTEMS) and Agriculture (DAGRI), since the SALCC catchment for these departments comes from the nation's 22 secondary schools.

Since SALCC is the lone indigenous tertiary level institution in St. Lucia, there is an emphasis on almost universal access to its tertiary level educational offerings. However, over time this permissive universality of access seems to potentially compromise the standard of the screening and selection processes. While all students are exposed to the same learning environment and infrastructure at the college, and have met the entry requirements, it has been observed that some students excel academically, while a significant number of students are unable

to sustain the academic performance exhibited at the secondary level. Consequently, over time, the institution continues to witness a decline in some students' academic performance once they have commenced their studies at the SALCC. During the five-year period 2015-2020, there has been a notable decrease in the students' academic performance from the Departments of Technical Education and Management Studies, Art Science and General Studies and Agriculture. It is also noted that a significant number of students from these departments score below 2.0 on the grade point average (GPA) scale used by the SALCC as measurement of the academic performance of students, where successful academic performance is between GPA 2.5 to GPA 4.0. It is also noted that students who scored below GPA 2.0 have failed five or more subjects out of a registered seven subjects for a semester and are placed on academic probation.

Supportably, the Office of Institutional Effectiveness (2019) of the SALCC, reports the following academic statistics for the period 2015-2020, highlighting the deficits in the students' performance. Such that, in the academic year 2015-2016, there was a total of 1838 students enrolled at the Department of Agriculture (DAGRI), Department of Technical Education and Management Studies (DTEMS) and the Department of Arts, Science and General Studies (DASGS) in semester one, and 1801 students in semester two. There is a noticeable decline of 37 students enrolled from semester one into semester two accounting for 2%. This data appears to be unreliable since it does not capture any dependable reason as to why there was a decline in semester two of students who enrolled.

In semester one, for the 2015-2016 period, 1353 students passed their examinations while, in semester two, 1340 were successful. There is a deficit of 1% of students passing in semester two as opposed to semester one in the students' academic performance. These figures show a decline in the students' academic performance for that period.

Comparatively, students who are on the Dean's List are students who have consistently achieved a 3.0 GPA and above during an academic year. The number of students on the Dean's List for the 2015-2016 period, in semester one, was 48 students, accounting for 3.5% of students passing their examination for that period. In semester two, the number of students who were on the Dean's List was 65, accounting for 4.8%, an increase of 1.3% from semester one to semester two for that period. The figures indicate a slight increase in the students' ability to excel for that period. However, this figure was still minimal when compared to the students enrolled for that period.

In contrast, the number of students on academic probation in semester one for the academic period 2015-2016 was 485 students accounting for 26.3% of the students enrolled for that period. In semester two, 501 students were on academic probation, accounting for 27.7%, which is an increase of 1.4% from semester one to semester two of students for the academic year. These figures seem to suggest that there is a deficit in the students' level of academic performance for that period. However, the number of students on academic probation is an area for concern because if one compares it to the number of students completing their examinations for that period it is still a significant figure.

For the academic period 2016-2017 a total of 1838 students were enrolled at the Department of Agriculture (DAGRI), Department of Technical Education and Management Studies (DTEMS) and the Department of Arts, Science and General Studies (DASGS), in semester one, and 1647 students in semester two. There is a noticeable decline of 191 students, accounting for 10.3%. This data appears to be unreliable since it does not capture any reliable reason why there was a decline in semester two of students enrolled for that period.

In semester one, for the 2016-2017 academic period, 1370 students passed their examinations, while in semester two, 1316 were successful. There is a deficit of 3.9% of students passing in semester two as opposed to semester one. The number of students on the Dean's List for the 2016-2017 period, in semester one, was 28 students, accounting for 2% of students passing their examination for that period. In semester two, the number of students who were on the Dean's List was 57 accounting for 4.33%, an increase of 2.33% from semester one to semester two for that period. These figures seem to show an increase in the number of students excelling in their academic performance for that period. However, it is a small percentage when compared to the number of students passing their examinations for that period.

In contrast, the number of students on academic probation for the 2016-2017 academic period in semester one was 468 students, accounting for 25% of the students enrolled for that period. In semester two, 331 students were on academic probation, accounting for 20%, a decrease of 5% from semester one to semester two. These figures show that there is an improvement in the students' level of academic performance for that period. However, the number of students on academic probation is an area for concern because if one compares it to the number of students completing their examinations for that period it is still a significant figure.

For the academic year, 2017-2018, there was a total of 1668 students enrolled at the Department of Agriculture (DAGRI), Department of Technical Education and Management Studies (DTEMS) and the Department of Arts Science and General Studies (DASGS), in semester one, and 1591 students in semester two. There is a noticeable decline of 77 students, accounting for a 4.6%. This data appears to be unreliable since it does not capture any reliable reason as to why there is a decline in the number of students enrolled into semester two every academic year.

In semester one, for the 2017-2018 academic period, 1311 students passed their examinations, while in semester two, 1289 were successful. There is a decrease of 1.68% of students passing in semester two as opposed to semester one. These figures show a decrease in the students' academic performance for that period. The number of students on the Dean's List for 2017-2018, in semester one, was 44 students, accounting for 3.35% of students passing their examination for that period. In semester two, the number of students on the Dean's List was 69 accounting for 5.35%, which is an increase of 2% from semester one to semester two for that period. These figures show an increase in the students' ability to excel in their academic performance for that period. However, it is a small percentage when compared to the number of students completing their examinations for that period.

In contrast, the number of students on academic probation in semester one of 2016-2017 was 357 students, accounting for 21.4% of the students enrolled for that period. In semester two, 292 students were on academic probation, accounting for 18.35%, a decrease of 3% from semester one to semester two. These figures show that there was an improvement in the students' level of academic performance for that period. However, the number of students on academic probation is an area for concern because if one compares it to the number of students completing their examinations for that period it is still a significant figure.

For the academic period, 2018-2019, a total of 1690 students were enrolled at the Department of Agriculture (DAGRI), Department of Technical Education and Management Studies (DTEMS) and the Department of Arts Science and General Studies (DASGS), in semester one, and 1569 students in semester two. There is a noticeable decline of 121 students, accounting for 7.15%. This data appears to be unreliable since it does not capture any reliable reason as to why there was a decline in the number of students enrolled into semester two every academic year.

In semester one, for the 2018-2019 period, 1367 students passed their examinations, while in semester two, 1274 were successful. There is a decrease of 6.8% of students passing in semester two as opposed to semester one. These figures show a decrease in the students' academic performance for that period. Correspondingly, the number of students on the Dean's List for that period, in semester one, was 40 students, accounting for 2.92% of students passing their examination for that period. In semester two, the number of students on the Dean's List was 75 accounting for 5.88%, which is an increase of 2.96% from semester one to semester two for that period. These figures show an increase in the students' ability to excel in their academic performance for that period. However, it is a small percentage when compared to the number of students completing their examinations for that period.

Contrastingly, the number of students on academic probation in semester one 2018-2019 was 323 students, accounting for 19% of the students enrolled for that period. In semester two, 295 students were on academic probation, accounting for 18.8%, a decrease of 0.19% from semester one to semester two. These figures show an improvement in the students' level of academic performance for that period. However, the number of students on academic probation is an area for concern because if one compares it to the number of students completing their examinations for that period it is still a significant figure.

For the academic period, 2019-2020, there was a total of 1536 students enrolled at the Department of Agriculture (DAGRI), Department of Technical Education and Management Studies (DTEMS) and the Department of Arts Science and General Studies (DASGS), in semester one, and 1389 students in semester two. There is a noticeable decline of 147 students, accounting for 9.57%. This data appears to be unreliable since it does not capture any reliable reason as to why there was a decline in the number of students enrolled into semester two every academic year.

In semester one, for the period 2019-2020, 1252 students passed their examinations, while in semester two, 1112 were successful. There is a decrease of 11.18% of students passing in semester two as opposed to semester one. These figures show a decrease in the students' academic performance for that period. The number of students on the Dean's List for that period, in semester one, was 40 students, accounting for 3.19% of students passing their examination for that period. In semester two, the number of students on the Dean's List was 109 accounting for 9.8%, which is an increase of 6.61% from semester one to semester two for that period. These figures show an increase in the students' ability to excel in their academic performance for that period. However, it is a small percentage when compared to the number of students completing their examinations for that period.

Contrastingly, the number of students on academic probation in semester one was 284 students which accounts for 18.4% of the students enrolled for that period. In semester two, 277 students were on academic probation, accounting for 19.9%, a decrease of 1.54% from semester one to semester two. These figures show an increase in the students' level of academic performance for that period. However, the number of students on academic probation is an area for concern because if one compares it to the number of students completing their examinations for that period it is still a significant figure.

Importantly, and considering the academic performance statistics observed between 2015-2020, D'Alessandro (2018) postulates that the average failure and referral rate in tertiary institutions is 10%. Thus, the above statistics suggest that the failure rate exhibited by students of the SALCC is above average and, therefore, not consistent with established benchmarks. It is in this regard another aim of this investigation is to unearth the underlying factors that contribute over time to the students' unsustainable academic performance at the SALCC.

It is noted that a deficit in students' academic performance, or an increased failure rate, may result in undesirable outcomes such as unsatisfactory levels of attrition, a reduction in graduates and increased educational costs to the students. These factors also reduce opportunities for students of the SALCC to access higher educational institutions and employment opportunities. It is essential, therefore, to be able to ascertain and comprehend the factors that impact academic performance.

So, what then are the challenges and gaps that are experienced by some students causing the disconnect between academic performances at secondary school level and at the Sir Arthur Lewis Community College?

There is considerable research where the focus of researchers and educators have been to investigate the factors which contribute to learners' academic achievement or failure (Abaidoo, 2018). For example, writers such as Alani and Hawas (2021) posit that the variables which impact the quality of academic performance among students are found to be internal and external of the learning institution. These factors may be classified as student factors, school factors, peer factors and family factors (Alani & Hawas 2021). In larger countries there is access to greater resources to investigate a wide range of factors which influence student academic performance. However, according to Warrican et al. (2020) in the context of the Caribbean region, where resources are limited, it is not always apparent which factors have the most significant influence on learner outcomes. As such, there is a dearth of published empirical research within the Caribbean region which focuses on factors which influence academic performance. Consequently, the development of policy and adequate planning in the region is based on limited information. Therefore, inadequate use of funds and resources can adversely affect the islands of the Caribbean where resources are already limited.

Writers such as Warrican et al. (2020) conducted an empirical study on the factors that influence the academic performance of students in the Caribbean, with a focus on the primary and secondary school system. Their study provides insights into the following factors which were taken into consideration as possible influences on academic performance of students which include but not limited to the curriculum, school environment, school leadership, teacher quality, classroom instructional practices, parental involvement, extra- and cocurricular activities, and available resources. These factors can be classified in the categories of school-based and home factors. The findings of this research reveal that school environment, type of secondary school, school leadership, teacher qualification and available resources influence academic performance. It must be noted, however, that according to Warrican et al. (2020) this study is only a basis for further research into the factors that influence academic performance. Further, the study adds to knowledge of conditions that can facilitate or impede academic performance. It is important, therefore, to seek to identify the factors that influence academic performance in the region, keeping in mind that recommendations coming from other countries may not be applicable in the context of the Caribbean.

However, it is not enough to focus only on academic success or failure but rather on sustainable academic performance which, in the long run, can result in one's overall well-being, personal growth and success. However, there is a deficit of published information on sustainable academic performance at the tertiary level of education particularly in the context of community colleges in the Caribbean region. While there are community colleges in the region such as the Bermuda College and the Turks and Caicos Islands Community College which offer programs and initiatives which support student and faculty overall well-being and sustainable academic performance, there is no published research on these institutions, or any learning institutions in the

region, on sustainable academic performance which could have been used as a benchmark for this study.

Moreover, there has been no clear or established definition of sustainable academic performance. Thus, for this study, sustainable academic performance is operationalized as one's ability to maintain the same or better academic performance once the individual has transitioned into the post-secondary level educational institution, particularly the SALCC.

It is with this in mind that the current study under investigation can offer further insight into not only school-based factors but also student-based factors influencing the sustainable academic performance of students at the tertiary level of education in St. Lucia. It is the hope of this researcher that this study contributes to knowledge on the factors influencing academic performance as well as sustainable academic performance.

With several theories and models of learning and motivation that can be applied to factors which contribute to sustainable academic performance, it must be noted that sustainable academic performance is a multifaceted concept that can be evaluated from diverse theoretical perspectives. Therefore, for this study, the Educational Productivity Theory, with reference to Walberg's (1981) Theory of Educational Productivity, is used to identify key variables that influence student learning outcomes. Thus, for this study, the students' sustainable academic performance is treated as the output factor (dependent variable) and the school-based and student-based factors as independent variables. Within the context of this study, school-based factors are operationally defined as institutional factors which include the resources and infrastructure, relevance of the curriculum, teacher-student interaction, teacher-student ratio, instructional strategies, performance assessment systems, teacher expectations, type of school and guidance and support that are used within schools to promote academic performance and sustainability. While student-based factors are operationally

defined as prior secondary school performance and tertiary level academic performance, age, gender, learner's ability, motivation, student engagement and self-regulatory learning strategies.

Overall, this study addresses gaps in previous research, such as conducted by Alani and Hawas (2021) that have not specifically identified the factors affecting quality of academic performance. Instead, they apply the more generalized categories of school and student-based factors without being specific. In this vein, Warrican et al. (2020), observe in their study, the deficit in Caribbean specific impacts on academic performance and the consequential misdirection of policy guiding information, yet fell short in being able to address the particular factors affecting student performance in the region, in the way that this study attempts. Moreover, most theories and studies referenced in this investigation do not offer specifics and, therefore, represent a major gap which this study addresses by identifying particular factors associated with academic performance, as derived from the findings.

Statement of the Problem

The problem that this research addresses is the identification of the factors which contribute to the decline and unsustainability in student academic performance at the SALCC. Historically, the academic performance of students is the benchmark for assessing the educational proficiency of a nation (Alani & Hawas, 2021). The Caribbean Secondary Education Certificate examination (CSEC) is the yardstick used throughout the Caribbean region including St. Lucia to measure school performance. Students admitted into the Department of Technical Education and Management Studies (DTEMS), the Department of Arts Science and General Studies (DASGS) and the Department of Agriculture (DAGRI) of the SALCC are graduates of the secondary school system, possessing a minimum of seven Caribbean Secondary Education Certificate (CSEC) subjects (equivalent to seven O' Levels) in various disciplines at grades I, II and III, which is the

basic entry requirements for the SALCC's respective programs. The table below illustrates the number of students completing the CSEC examinations from 2015 to 2019.

Table 1.1

Achievement in at Least 5 CSEC Subjects, 2015 to 2019 at the Secondary School Level of Education

Year	No. of Student Sitting	No. of Students Achieving 5 CSEC Subject Passes	No. of Students Achieving 5 CSEC Subject Passes	No. of Students Achieving 5 CSEC Passes Including English A and Mathematics	Percentage of Students Achieving 5 CSEC Passes Including English A and Mathematics
2015	2122	1840	1137	890	41.9
2016	2280	1871	1071	813	35.5
2017	2218	1775	1077	693	31.2
2018	2363	1832	1156	780	33.0
2019	2392	1804	1128	787	32.9

Note. Adapted from *The St. Lucia Educational Digest*, Saint Lucia Department of Education, Innovation and Gender Relations Corporate Planning Unit, 2019, p. 101.

The data from the St. Lucia Statistical Digest (2015-2019) reveal the national academic performance of students completing the CSEC examinations for the period 2015-2019. From the above data, it is noteworthy that while the intake of students writing CSEC examinations have constantly increased annually, the number of students achieving 5 CSEC subjects including English, and Mathematics, have constantly decreased over the same period of 6.4% from 2015-2016 and 4.5% in 2016-2017. However, in 2017-2018 there was a slight increase of 1.8% but a decrease of 0.4% from 2018-2019. Since the benchmark to attend the SALCC is 5 CSEC passes

inclusive of English and Mathematics, with the annual intake being usually above 800, SALCC is forced to accept students who do not meet the qualifying entry requirements, thus, potentially impacting overall student performance at the college. Moreover, students who do not succeed at the CSEC examinations in English and Mathematics are given the opportunity to gain access via the SALCC examinations in English and Mathematics while completing courses in their chosen program of study. Notwithstanding, this provision can allow an opportunity for accessing college education, some students seem to be overwhelmed because of their academic workload.

Notwithstanding that most of these students who are proficient at the secondary school level, meet the entry requirements and register into the College's two-year program, a significant number score below 2.0 on the GPA scale used by the SALCC as measurement of the academic performance of students. Successful academic performance is between a GPA of 2.5 to GPA of 4.0. It is noted that students who score below 2.0 have failed five or more subjects out of a registered seven subjects for the semester and, therefore, would be placed on academic probation. Moreover, it is significant to note that the decline in academic performance has also negatively impacted on the caliber of graduates entering into the domestic labour force and further education.

While research in other areas has been conducted in regard to academic performance at the college there is no significant investigation to date to identify the reasons or the factors for the decrease in student academic performance. It is important, therefore, to be able to identify the factors influencing the sustainable academic performance of students at the SALCC so that the appropriate interventions and strategies can be implemented to help to alleviate the phenomena. This research endeavours to take into consideration the views of current students who were enrolled at the SALCC during the period of this study 2015-2020, graduates of the SALCC, lecturers of the SALCC, staff of the Students Services Unit, secondary school teachers, guidance counsellors and

employer representatives, in order to obtain information on the factors influencing the sustainable academic performance of students, as well as strategies which can be implemented to alleviate the expressed research problem.

Purpose of the Study, Research Aims, and Objectives

The purpose of this mixed-method study is to empirically investigate the underlying factors that result in performance gaps and academic challenges for a significant number of students, that contribute to their unsustainable academic performance once admitted into the Sir Arthur Lewis Community College. To achieve these purposes, both quantitative and qualitative data collection methods are used to identify the school-based and student-based factors (independent variables) which impact a significant number of students' ability to sustain their academic performance (dependent variable) once admitted to the SALCC. More specifically, the study endeavours to:

- Investigate the student-based factors that determine the sustainable academic performance of students in Sir Arthur Lewis Community College in Saint Lucia.
- Investigate the school-based factors that determine the sustainable academic performance of students in Sir Arthur Lewis Community College in Saint Lucia.
- Establish the extent to which student-based factors influence the sustainable academic performance of students in Sir Arthur Lewis Community College in Saint Lucia.
- Establish the extent to which school-based factors influence the sustainable academic performance of students in Sir Arthur Lewis Community College.

It is envisaged that the outcome of the study will be corroborated by supporting theoretical underpinnings and allow for bridging the gaps identified between learner deficiencies and sustained academic performance. Further, these revelations would serve the purpose of making

informed recommendations and devising strategies aimed at improving the overall sustainable academic performance at the SALCC.

Significance of the Study

The study aims to contribute to knowledge on academic transition by identifying the factors that impact sustainable academic performance from secondary school to tertiary level education and beyond, as well as document the factors related to the academic success or failure of students at the SALCC. Further, this knowledge more definitively inform the factors impeding sustainable academic performance for the significant number of students at the SALCC who show deficits in their ability to transfer their knowledge into the workplace. The determination of the factors influencing the students' ability to sustain their academic performance at the SALCC provides the impetus for making guided informed recommendations, proposals and interventions aimed at bridging the gaps which exists among stakeholders. In this regard, students can be better prepared for higher education and entry to the workforce. Correspondingly, further education institutions and the workforce would benefit from improved quality of human resources as they enter both environments. SALCC would gain a better understanding of the core issues, thereby assisting the institution to make the necessary adjustments aimed at improving and contributing to the students' sustainable academic performance.

The outcome from the study gives students a better appreciation of the issues that potentially impact the sustainability of their academic performance and enable them to develop strategies that would assist them in making the necessary modifications/adjustments to improve and sustain their academic performance throughout their two years of study at the SALCC. Further, the results enable teachers at the secondary schools and lecturers at the SALCC to better appreciate the prevailing issues and make the necessary modifications/adjustments to their

teaching methods and identify ways of responding to the needs of the students so that they are able to sustain their academic performance.

Additionally, the study provides guidance counsellors at the nation's secondary schools, as well as the Students Services Unit of the SALCC, with information of the challenges faced by students at the post-secondary school level and to make the necessary modifications/adjustments in preparing students for post-secondary education. Finally, the result of this investigation serves to benefit the citizens, the Government of Saint Lucia by extension, the Ministry of Education, Curriculum Development Specialists, as well as the SALCC and its future graduates. As such, the results encourage the implementation of the necessary policy modifications/adjustments, strategies and interventions that would promote academic excellence among students and, therefore, better prepare them for institutions of higher learning, post-secondary school, and the world of work.

Operational Definitions of Terms

The Education Production Theory used in this study allows the study to identify the most relevant variables to determine student learning outcomes. The terms 'input' and 'output' are used to describe the dependent and independent variables that are related to student learning outcomes. In this study, the school-based and student-based factors have been categorized as the input/independent variables, which have been used to investigate sustainable academic performance of students, which are the output/dependent variables at the Sir Arthur Lewis Community College, Saint Lucia.

Independent Variable #1 – Student-based Factors:

For this study, student-based factors are operationally defined as the prior secondary school performance and tertiary level academic performance, age, gender, learner's ability, motivation, student engagement and self-regulatory learning strategies. Other writers, for example, Justice

(2016, as cited in Amfo, 2019) in his study identifies student-based factors as learner socio-economic circumstances and parental participation in their children's education. Additionally, Bertolini et al. (2021) in their article characterize student-based factors such as the resiliency, ability, well-being, attendance, social and moral development as well as the developmental differences of learners. Further, Ali et al. (2013) posit that in a different setting, prior schooling, student effort, educational background of parents, family income, age of the student, self-motivation, entry qualifications and learning preferences are significant factors that have an impact on the students' academic performance. One can connote from these operational definitions that school-based factors are contextualized to the study undertaken by the writers.

Prior secondary school performance and tertiary level academic performance

For this study, prior secondary school performance and tertiary level academic performance refer to the students' academic performance at the Sir Arthur Lewis Community College in relation to their academic performance at the secondary school level.

Age

A period of human life during the time of this study. In this instance, between the ages of 16 to 62 years.

Gender

Students who identify as either male or female.

Learner's Ability

In this study, the learner's ability is regarded as the learner's academic capacity. In this instance, the students' ability to understand the lesson taught, their ability to make the adjustment from secondary school to the SALCC and any challenges experienced by students inhibiting their

ability to make the seamless adjustment. The lecturer's experiences with students accepted into the various programs of the SALCC under investigation as well as the students' preparedness for college level work and the common issues and challenges which render them so. The satisfaction of lecturers with the students' entry level academic qualifications and the preparedness of students who are at the secondary school level for post-secondary education. Additionally, the student's preparedness for the internship program in terms of their soft skill, knowledge, and skillset. The willingness of employer participants in the SALCC internship program to employ an SALCC graduate if a vacancy exists compared to graduates from another learning institution. How well did SALCC prepare students for the workplace or institutions of higher learning as well as the highest level of education attained by students.

Motivation

For this study, motivation is operationally defined as the intrinsic and/or extrinsic process that activates a behaviour. In this instance, the reasons for the students' selection of program of study at the SALCC, the satisfaction of employers participating in the SALCC internship program with the crop of students sent on internship as well as the challenges or issues encountered with students on internship over the last 4 years.

Self-Regulatory Learning Strategies

Self-regulatory learning strategies are defined as the students' ability to develop strategies to achieve their assigned task, monitor and reflect on their performance as well as seek support where necessary. In this instance, it is regarded as the students' ability to meet the demands of their program of study and seeks support when necessary. Additionally, the student's ability to access and seek support from the Sir Arthur Lewis Community College and guidance counsellors at the Secondary School level to assist and address the challenges faced by them.

Student-Engagement

For this study, student engagement is regarded as the level of student involvement in their learning, connection to their classes and the learning institution. In this instance, the adequacy of the number of contact hours for class, student attendance and absenteeism, student's level of comfort with group work or working individually, their preparedness for class as well as the percentage of students completing their assignments on time and meeting deadlines. Additionally, some of the common issues, concerns, and fears faced by students with reference to post-secondary education in relation to course work, the teaching methods, the learning environment, the facilities, and student interaction with lecturers.

Independent Variable #2 – School-based Factors:

For this study, school-based factors are operationally defined as institutional factors which include the resources and infrastructure, relevance of the curriculum, teacher-student interaction, instructional strategies, performance assessment systems, teacher expectations, and guidance and support that are used within schools to promote academic performance and sustainability. There are variances among researchers regarding the operational definition of school-based factors. For example, Abaidoo (2018) identifies instructional resources, discipline, effective teaching, class size and the school environment, as key school-based factors affecting academic performance. Other writers such as Marzano (2003, as cited in Cucco et al., 2021), argues that the most significant school-based factors which impact the performance of learners are an approved and viable curriculum, followed by ambitious goals and valuable feedback, parent and community participation, a safe and conducive learning environment and teamwork and professionalism. Wotherspoon (2020) underscores the influence of school-based factors that are central to students dropping out of school include factors such as the school system,

teacher-student relationships, the curriculum, institutional resources and quality of learning experiences. One can connote from these operational definitions that school-based factors are contextualized to the study undertaken by each writer. Below is the operational definition of each construct mentioned above.

Learning resources

For this study, learning resources are defined as the learning material required by students in the pursuance of education. In this instance, they are regarded as access to required textbooks/reading materials for class and the impact, if any, the absence of these has had on the academic performance of students. Resources and infrastructure are the available resources that can be employed to enhance the academic performance of students. These would include the availability of learning materials, technology (Wi-Fi access), library facilities, laboratory facilities, classroom size and facilities in terms of lighting, layout, size, location, air circulation and visual aids.

Type of School

For this study, type of school refers to the perceived low, mid-range and high-level secondary schools within the secondary level of education system in St. Lucia.

Relevance of the Curriculum

For this study, the relevance of the curriculum is the appropriateness and applicability of the curriculum in meeting the needs of learners and society. In this instance, it examines whether the SALCC is meeting the demands of employers, prepares students for the workplace or institutions of higher learning as well as the level of satisfaction of the curriculum at the secondary school level in preparing students for the CSEC examination.

Teacher-student Interaction

For this study, teacher-student interaction is the academic relationship between students and teachers that fosters a productive learning environment. In this instance, teacher-student interaction refers to the teacher's level of professionalism and approachable nature, the teacher's knowledge regarding the subject area, the teacher's ability to be attentive and offer solutions to the challenges experienced by the students as well as ensuring that students understood the concept taught before moving on with the lesson. Additionally, it refers to the teacher's ability to execute the lesson taught by adapting the content to the level of the students' ability, making use of appropriate teaching methods and assessments. Teacher-student interactions also refers to the teacher's interaction with students, ability to encourage students to work collaboratively, the teacher's ability to show enthusiasm for the lesson, as well as the ratio of teacher to students and its impact on learning experience.

Teacher-Student Ratio

For the study, teacher-student ratio refers to the ratio of students to each teacher in a class at any point in time.

Student Expectations of the Learning Institution

For this study, the term student expectations of the learning institution refers to the expectations which students have of the learning institution even before they have gained acceptance and enrolled into their respective programs. These expectations include learning resources, workload and relationships with teachers and colleagues which may shape their satisfaction with their learning experiences and academic success.

Instructional Strategies

For this study, the term instructional strategies refers to the teaching techniques employed by teachers to assist students to learn strategically or independently. In this instance, instructional strategies refer to the adequacy of the number of contact hours for class, the average ratio of students to a teacher in the classroom and the influence, if any, on the students' learning experience. It also examines the change in teaching methods and practices from secondary level of education to that of the SALCC.

Heavy Workload

For this study, heavy workload refers to the amount of academic work a learner is required to complete within a specified timeframe such as weekly or by a semester.

Performance Assessment Systems

For this study, the term performance assessment systems is regarded as ways to determine whether students have understood the concepts taught which are essential to improving the academic performance of the students. Thus, in this instance, the appropriateness of the established academic performance systems of the SALCC as well as the entry requirements of the SALCC.

Teacher Expectations

For this study, teacher expectations are operationally defined as the students' opinion of the teacher's expectations of them. In this instance teacher expectations refer to the teacher's expectations of students' ability to adjust to tertiary level education and the impact on their learning experiences.

Guidance and Support

Guidance and support are operationally defined as support and necessary systems that are used within schools to promote academic performance and sustainability. In this instance, the support and necessary systems to assist students with adjusting to post-secondary school life, the

support provided to low achievers, policies, if any, which exist in assisting students with their SALCC school experience and the orientation process/system employed at the SALCC. Guidance and support also refers to the role of the guidance counsellor in preparing students for CSEC and post-secondary education. Additionally, guidance and support refer to what is being done at the secondary school level in preparing students for post-secondary level training as well as what can be done to assist or prepare these students for post-secondary education.

Dependent Variable– Sustainable Academic Performance:

For this study, sustainable academic performance is defined as one's ability to maintain the same or better academic performance once the individual has transitioned into the post-secondary level educational institution, particularly the SALCC. Writers such as Abaidoo (2018) assert that the operational definition of academic performance as the students' learning outcomes at the end of a specific term in all subjects. Additionally, the level of satisfaction of teachers at the secondary school level with the existing systems for preparing students for sustainable academic performance in post-secondary education. Moreover, the present curriculum at the secondary school level and its influence on sustainable academic performance. Also, the solutions to ensuring the sustainable academic performance of students in post-secondary education.

Research Questions

To accomplish this study, the following research questions will be explored:

- What are the student-based factors that determine the sustainable academic performance of students at Sir Arthur Lewis Community College in Saint Lucia?
- What are the school-based factors that determine the sustainable academic performance of students at Sir Arthur Lewis Community College in Saint Lucia?

- To what extent do student-based factors influence the sustainable academic performance of students at the Sir Arthur Lewis Community College?
- To what extent do school-based factors influence the sustainable academic performance of students at the Sir Arthur Lewis Community College?

CHAPTER 2: LITERATURE

The literature review covers the following areas related to the factors which influence the academic performance of learners. The first section of this review introduces the theoretical and conceptual frameworks utilized in this study. Secondly, the chapter outlines literature as it relates to the nature and concept of academic performance, predictors of students' academic performance, the influence of students' ability level on academic performance as well as the correlation between child development and academic performance. The literature also provides an insight into students' characteristics namely: age, gender, personality traits, socio-economic status and attitudes, motivation, goals, and the impact of self-regulatory learning strategies as they relate to academic performance.

Finally, the researcher examines literature as it relates to the institution-based factors which can influence the academic performance of learners. The variables include, but are not limited to, the importance of learning resources, teacher-student interaction, instructional strategies, teacher expectations, relevance of the curriculum, performance assessment systems, guidance, and support services and infrastructure. The chapter concludes with a literature summary and identifies the need for additional research.

Theoretical Framework

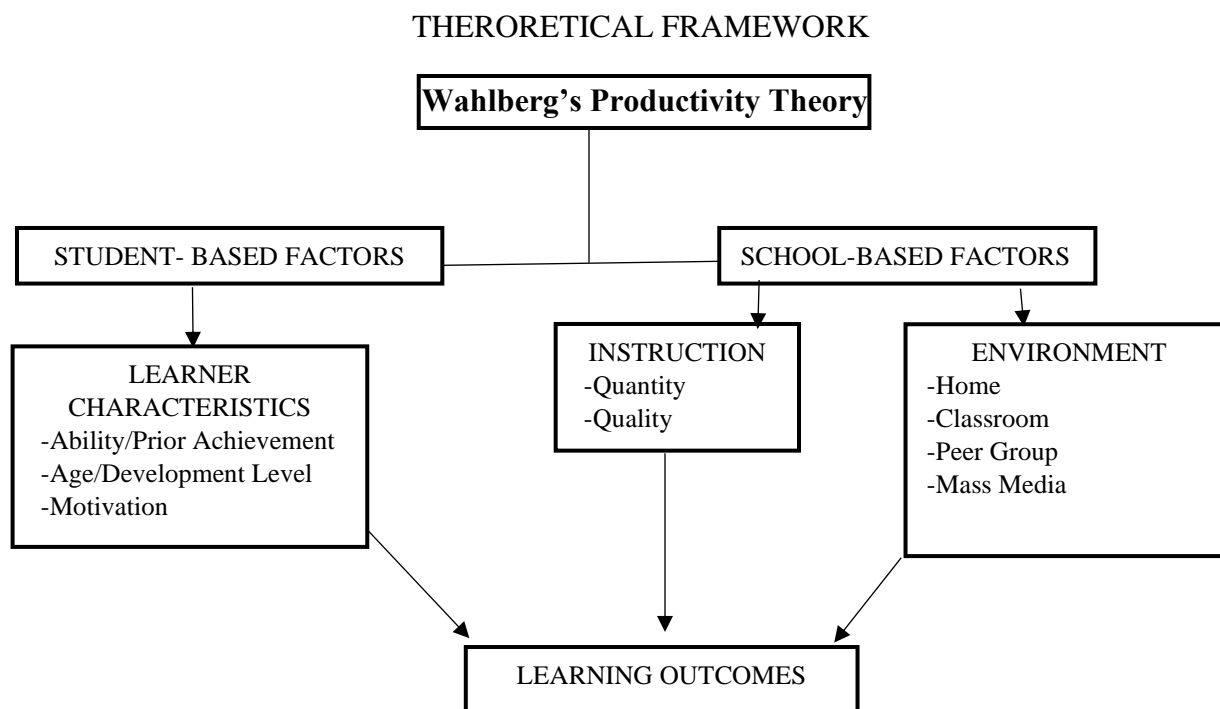
There is an increasing body of empirical research, which denotes that there are varied influences on student learning outcomes (Alani & Hawas, 2021). Thus, researchers have put forward several theories and viewpoints to discuss variables that can feasibly influence students sustained academic performance. An analysis of the writings reveals that learning success, particularly from the point of view of academic performance, is either clearly or indirectly related to several variables, including psychological, sociological, organizational, and financial

limitations (Ul Hadi & Muhammad, 2019). The similarity in the theoretical viewpoints is that positive learning outcomes are as a consequence of effective social, psychological, and academic integration of the school (Ul Hadi & Muhammad, 2019).

Thus, for this study the theoretical underpinning of Wahlberg's (1981) Educational Productivity Theory is used to discuss the link between learning variables and academic performance. The key concept of the Educational Productivity Theory proposes that there are nine factors required for behaviour, affective as well as cognitive learning. These determinants include instructional variables (1. quantity and 2. quality), learner characteristics (3. ability, 4. motivation, and 5. development), and environmental variables (6. classroom, 7. home, 8. media, and 9. peers). Thus, the educational variables which have become the focus of Walberg's (1981) theory include motivation, home environment, prior achievement/learner ability, quantity of instruction, quality of instruction, developmental/age level, classroom climate, exposure to mass media outside of school as well as peer group (Walberg et al., 1986). These variables can be referred to as student-based and school-based factors as possible predictors of academic performance.

Figure 2.1

Wahlberg's (1975) Productivity Theory Theoretical Framework



Researchers such as Yusuf et al. (2016) used Wahlberg's (1981) Educational Production Theory to identify the factors influencing learners' academic success at college in a first-year accounting course. Abaidoo (2018) also used Wahlberg's (1981) Educational Production Theory to examine the factors contributing to the academic improvement of junior high students. The Wahlberg (1981) Educational Productivity Theory was used in these instances because it is one of the few empirically tested school learning theories based on a comprehensive review of over 3,000 studies (DiPerna et al., 2019). In the case of Yusuf (2016), the study was limited to the following variables, namely: prior achievement, student's ability (metacognitive knowledge) and age. While in the case of Abaidoo (2018), the study was limited to student factors such as motivation, regular studying, hard-work, punctuality, attending classes regularly, and subject interest; teacher factors such as use of teaching and learning materials, completion of syllabus, academic support and

frequent feedback; parent factors such as academic support and showing concern; and school factors such as teaching and learning materials and availability of textbooks. Yusuf et al. (2016) surmise that prior achievement and student's ability (metacognitive knowledge) have a significant influence on academic performance. While Abaidoo (2018) surmise that gender and parent education level have a positive relationship with academic performance though insignificant. However, it is noted that age has a positive significant influence on academic performance.

Additionally, Walberg's Educational Productivity Theory has also been used (Ma & Wang, 2020) to guide a confirmatory assessment of the connection between educational variables and the career goals of students. The findings show a strong unambiguous and indirect connection between the education variables, educational outcomes, and career goals. Motivation, instructional quality, as well as peer environment, have the most significant indirect influence on educational outcomes and career goals. The researchers (Ma & Wang, 2020) confirmatory assessment infers that those variables of education productivity enhance students' career goals by enhancing the education outcomes of students.

However, a highlighted limitation of Walberg's (1981) theory is that the educational productivity model is only effective when the context can be understood. Thus, using the Education Production Theory, in this study, enables the researcher to identify the most relevant variables to determine student learning outcomes. Hence, this study is limited to the following variables: prior academic achievement, instructional variables (quantity and quality), learner characteristics (ability, motivation, and development/age), and environmental variables (classroom, home, and peers). The terms input and output have been used to describe the dependent and independent variables that are concerned with student learning outcomes. In this study, the school-based and student-based factors have been categorized as the input/independent variables,

which have been used to investigate sustainable academic performance of students, which is the output/dependent variable at the Sir Arthur Lewis Community College, Saint Lucia.

Previous studies reveal that at the post-secondary level of education, variables such as prior-academic performance, student ability and child development, gender, age, socio-economic status, attitudes, personality traits like openness to experiences, agreeableness, conscientiousness, extraversion and neuroticism, self-regulatory learning strategies, goal orientation and quality and quantity of instruction can have either a positive or negative influence on academic performance. Cognizant of their potential influence, these variables have been used in this study to determine their influence on learners' ability to sustain their academic performance at the SALCC.

For instance, prior academic performance is claimed to have a significant influence on academic performance at the post-secondary level. This notion is confirmed by McKenzie et al. (2004) who purport that previous performance is the most fundamental predictor of academic performance of students at an Australian university. Further, Ofori and Charlton (2002) attribute the negative impact of entry qualifications of learners entering university in England on academic performance. These studies reveal the need to consider the direct influence of academic entry requirements, in this situation, the Caribbean Secondary Examination Certificate (CSEC) examination grades on the sustainable academic performance of learners at the SALCC, particularly in their first year of study.

There have been conflicting results on the influence of gender on academic performance at the post-secondary level of education. While some writers, Ranjeeth et al. (2020) purport that female learners outperform their male counterparts. In their study, Reily et al. (2019) discover that gender was not a fundamental variable. For the purpose of this study, learners' grade point average

is used to evaluate the academic performance of learners at the SALCC, thereby determining the degree to which gender will influence the overall academic performance of learners.

Palacios et al. (2018) propose age as having an indirect influence on academic performance. It is evident that when mediated by learners seeking guidance and support, academic entry qualifications and prior academic performance, age can have a direct influence on the academic performance of students' post-secondary school. However, writers such as Sothan (2019) argue that there is no sufficient evidence to indicate age is a predictor of academic performance.

Academic ability and child development, unilaterally or together, can influence academic performance. Learners' home environment, support, or lack thereof from family, level of motivation, attitude towards work, socialization, self-efficacy, self-esteem, and cognition, to name a few, can influence their academic performance. The foundation set in the formative years of learners' development can have either a positive or an adverse influence on their academic readiness as they transition from one level of education to another. Thus, it is fundamental to review the Student Developmental Theory which emphasizes the importance for learning institutions to consider the learners' pre-college competencies and cognitive development or deficiencies, including autonomy, self-concept, attitude towards learning, locus of control, support seeking and the influence they can have on sustainable academic performance.

Stajkovic et al. (2018) posit that personality has the most significant influence on academic performance, particularly moderated by self-regulatory learning approaches. Most notable are conscientiousness, agreeableness, and openness to experience. There seems to be a complicated relationship between extraversion and neuroticism and academic performance. The nature of the

learners' academic goals can also influence their level of enthusiasm for the task and impact their academic performance.

Learners' ability to take responsibility for their learning is closely associated with adopting a deep learning approach to education, being intrinsically motivated and goal-oriented and utilizing self-regulatory learning approaches, all of which are fundamental to the academic performance of learners at the post-secondary level of education. It is crucial for students to have a positive attitude towards school, teachers, and their area of study. Having a positive attitude will enable students to focus wholeheartedly on their learning experience thereby resulting in positive learning outcomes (Alhadabi & Karpinski, 2020).

Motivation is considered as one of the factors that can either promote or result in low academic performance. Students are either motivated intrinsically or extrinsically, which can determine their level of participation in an assigned task. Moreover, when students perform well at school, they become motivated and want to excel in their academic performance. Conversely when students perform poorly, they lack motivation, feel despondent and unable to enhance their academic performance. In this instance, it is imperative that teachers and parents inspire students to persevere and gain an understanding of the cause of poor performance.

The socio-economic status of students cannot be overlooked on its impact on academic performance. The provision of learning resources is vital to the learning experiences of students. The provision of these resources is dependent on the financial capacity of parents. Thus, when parents are financially buoyant, they are able to provide all the requisite resources for their children. However, when families are financially deprived, they are incapable of providing the requisite resources and, therefore, some students find alternative means to accomplish their tasks or drop out of school.

This study also investigates the influence of school-based factors on sustainable academic performance. The school-based factors include instructional resources, teacher-student interaction, instructional strategies, teacher expectations, relevance of the curriculum, performance assessment systems and guidance and support services.

The relationship between teachers and learners, support from guidance counsellors, learning resources and teaching strategies are fundamental to learners' academic performance at the secondary school level, whereas learners' ability to take responsibility for their learning becomes more critical at post-secondary education. It is in this regard that Bhatt and Bahadur (2020) emphasize the need for learners to be actively involved in the learning process. This is supported by Tinto (1975, as cited in Herzog, 2005), who, in his Integration Theory, argues that the extent to which learners are actively integrated in their learning environment can influence their academic performance either favourably or negatively.

Moreover, Spady (1970, as cited in Herzog, 2005) in his Socializing Theory, confirms the views of Tinto (1975, as cited in Herzog, 2005) that learners' prior academic competencies are vulnerable to the demands, influences and expectations of their new learning environment. These variables include the learners' academic abilities, family background, peer support, normative congruence, grades, as well as intellectual competencies. Thus, the degree of impact of these variables can either influence the learners' ability to persist with or withdraw from school. Bean (1980), in his Psychological Theory of Student Retention, also argues that the background characteristics of learners must also be considered in order to comprehend their level of integration into their new learning environment.

The role of teachers in the learning process cannot be overstated. Thus, it is imperative that they possess the traits that would positively influence the academic performance of students.

Having an approachable nature, listening to student needs, providing solutions to their problems, being knowledgeable in their subject area and using appropriate and modern and innovative learning strategies and directing all classroom activities are some of the positive traits that can influence the academic performance of students.

The expectations of the teachers can impact learners' academic performance one way or another. In some instances, teachers' expectations may not be realistic. It is essential, therefore, for the teachers to manage their expectations and provide the requisite support to all students with the aim of assisting them through the learning process.

The role of the counsellor is critical. Many learners face diverse challenges particularly during the transition phase, as well as upon entering the new learning environment. It is equally important that educational institutions like the SALCC provide support at the secondary school level of education by providing information to equip them with the post-secondary school challenges to guide them at that level. If this is not done, learners will continue to be unprepared for the academic rigor which obtains at the post-secondary level and can lead to frustration, poor work ethic, poor performance, repetition of courses and even high levels of attrition. On the other hand, if an approach to guidance is adopted by the SALCC, this can lead to positive learning outcomes and sustainable academic performance.

In addition, support provided by the SALCC at the post-secondary level can help learners to navigate and embrace their new learning environment. However, because of a culture of mistrust, learners are reluctant to visit counsellors when they are faced with academic or personal challenges. While some students can cope, others seek undesirable coping mechanisms which can further lead to undesirable outcomes.

Kutu et al. (2020) posit that learning resources are fundamental to the learning process. They include, but are not limited to, audio visual equipment, textbooks and other printed material, facilities such as library, classroom, ICT, and internet services. The availability of teaching and learning resources can improve the quantity and quality of educational experiences, thereby contributing positively to students' academic performance, thus, enabling students to understand the academic concepts taught as well as to perform assigned task efficiently and effectively. However, poor academic performance can be based on inadequate teaching and learning resources and equipment. It is imperative, therefore, that educational institutions endeavor to attract and maintain the best teaching and learning resources.

The appropriate use of these learning resources, particularly during the implementation of the curriculum, is fundamental to achieving learning outcomes of the subject area. For example, the availability of a library is critical to a student's learning experience. It provides users an opportunity to access books and learning materials of interest to them. There are instances where students are unable to afford the requisite textbooks and, therefore, the library affords them the opportunity to make use of the library facilities to enable them to enhance their learning experiences and academic performance. Additionally, access to laboratory services allows teachers to demonstrate theoretical concepts practically, thereby allowing students to recall their observations rather than to rely on what they hear. Activities include, but are not limited to, observations, measurements, counting, experimentations, recording, investigations, testing, analysis, and fieldwork which afford students the opportunity to learn basic skills and scientific approaches to problem solving. Further, access to technology is vital to the learning process. The internet provides an alternative to obtaining information to enhance their learning experiences,

thereby allowing them to get a better comprehension of concepts taught. Also, it provides students with access to various tools to improve their preparation of reports, projects, and assignments.

While some writers place the sole responsibility of the acquisition and provision of learning resources on the educational institution, it must be noted that parents also have a responsibility for providing the essential learning resources for their children. The parents' inability to provide these resources for school can lead to poor attendance, decreased retention, poor integration, unpreparedness for school and decreased academic performance. Thus, learning resources are critical within the school system in achieving their objectives and realizing sustainable students' academic performance.

The instructional strategies used can have either a positive or adverse influence on students' academic performance. At secondary school, the teacher-centered instructional approach is used, where the teacher is in control of the learning process. However, at the post-secondary level of education, a more student-centered approach is taken where students take more control of their learning and teachers provide guidance and support to learners. Some students transitioning from a teacher-centered learning environment expect to have this same interaction with their teachers at the post-secondary level. As a result, some of them are unable to cope with this new learning strategy and this can lead to poor academic performance. Some learners who can adapt to their new learning environment are intrinsically motivated and practice self-regulatory learning approaches and are more predisposed to sustaining their academic performance. Additionally, it is essential to understand the learning strategies of students so that suitable teaching strategies can be implemented in the subject area. Thus, the teaching and methods used should be appropriate to the needs of students and beneficial to them.

For example, if students are visual learners, then teachers should use strategies such as videos, charts, and PowerPoint presentations. Conversely if students learn better through verbal expressions, then teachers should use strategies such as lecturers and classroom discussions. Understanding how students learn and using the appropriate strategies to meet their needs can help them enhance their understanding of concepts taught as well as encourage learning among them through collaborative learning experiences.

Implementing the most appropriate evaluation system is essential to enhancing the academic performance of the students. In order for teachers to determine whether students have understood the concepts taught it is critical to use proper evaluation systems that would provide a fair evaluation of the performance and learning abilities of students. The level of students' performance will determine whether students have understood the concepts taught as well as the determine the effectiveness of the instructional methods used by teachers.

There, however, seems to be a variance in the objectives of the performance assessments used at the secondary school level, as compared to that which is obtained at post-secondary education. While the secondary school systems assess the students' factual knowledge, this approach cannot stand up to the academic rigor of the post-secondary level which requires students to use their metacognitive skills to think critically, solve problems and be innovative in their approach to learning. Not possessing these skills at the post-secondary level can have a significant impact on their academic performance. Thus, one can assume that there is a significant variance in the curriculum at the secondary level to that of the post-secondary level. It is essential, therefore, that the curriculum used at both levels of education must be relevant and updated to the needs of the workforce. This is because some students may decide to forgo post-secondary education because of various circumstances and enter the workforce instead.

While all of the studies which have been cited and evaluated have identified school and student-based factors influencing academic performance, none of the studies have addressed which factors influence sustainable academic performance of learners at post-secondary school. This model therefore is utilized since it provides the researcher the latitude to identify variables which could be examined as factors which impact academic performance and, by extension, sustainable academic performance of students within the context of the SALCC. This study, therefore, proposes the aforementioned variables as having an impact on the sustainable academic performance of students of the SALCC.

Other supporting theories, which include Tinto's (1975) Integration Theory suggest that the learning environment plays a critical role in the learner's academic outcomes. While, originally, the intention of Tinto's (1975) theory seems to identify negative variables which influence a student's choice to withdraw from school, over time, research reveals that a student's ability to engage socially and academically into a learning institution, having clear learning goals, as well as accessing support, have been significantly and undoubtedly linked to varied academic outcomes. These factors include the learner's academic ability, prior schooling, gender, intellectual development, race, quality and quantity of teacher-student interaction, academic support, learner ability to adjust to the new learning environment, academic and social challenges, incongruence as well as learning and external obligations or commitments of the learners, can influence learning outcomes.

Another supporting theory is Bean's (1980) Psychological Theory of Student Retention which further contends that there are academic and non-academic factors which influence learner outcomes. These factors include learner motivation, low grades, ability to adjust to the new learning environment, academic self-concept and self-esteem, peer relationships, teacher-student

interaction, and the learning environment. By understanding the influences of these variables on learner outcomes, learning institutions can develop appropriate interventions to support learners who are struggling with the aim of improving their academic performance and their ability to persist thereby improving on the learner's contentment with, and commitment to the learning establishment.

This notion is further supported by Spady's (1970) Sociological Theory which posits that a student's choice to withdraw from school is best explained by the student's level of integration into his or her learning environment. In this interaction, a student's pre-college qualities such as attitudes, competencies and interests are susceptible to influences, demands, as well as expectations of the learning institution. The outcome of this interaction will be determined by the factors that promote the student's integration academically and socially in institutions of higher education. These elements include grade performance, academic potential, intellectual development, normative congruence, peer support, as well as family background. All these factors are further linked to two variables put forward in Bean's (1980) Psychological Theory; the student's contentment with and commitment to the learning establishment.

Finally, to understand sustainable academic performance, it is also essential to examine student development theory. Student development theory (Deci and Ryan, 2018) highlights the importance for learning institutions to consider the students' pre-college academic and developmental or noncognitive deficits, including attitudes toward learning, autonomy, self-concept, locus of control and ability to seek help, as well as their influence on sustainable academic performance. According to Student Developmental Theory, all the above-mentioned variables influence academic achievement and are distinct from students' academic skills and intellect (Ballo et al., 2019). Taking this into consideration will highlight the college's responsibility, particularly

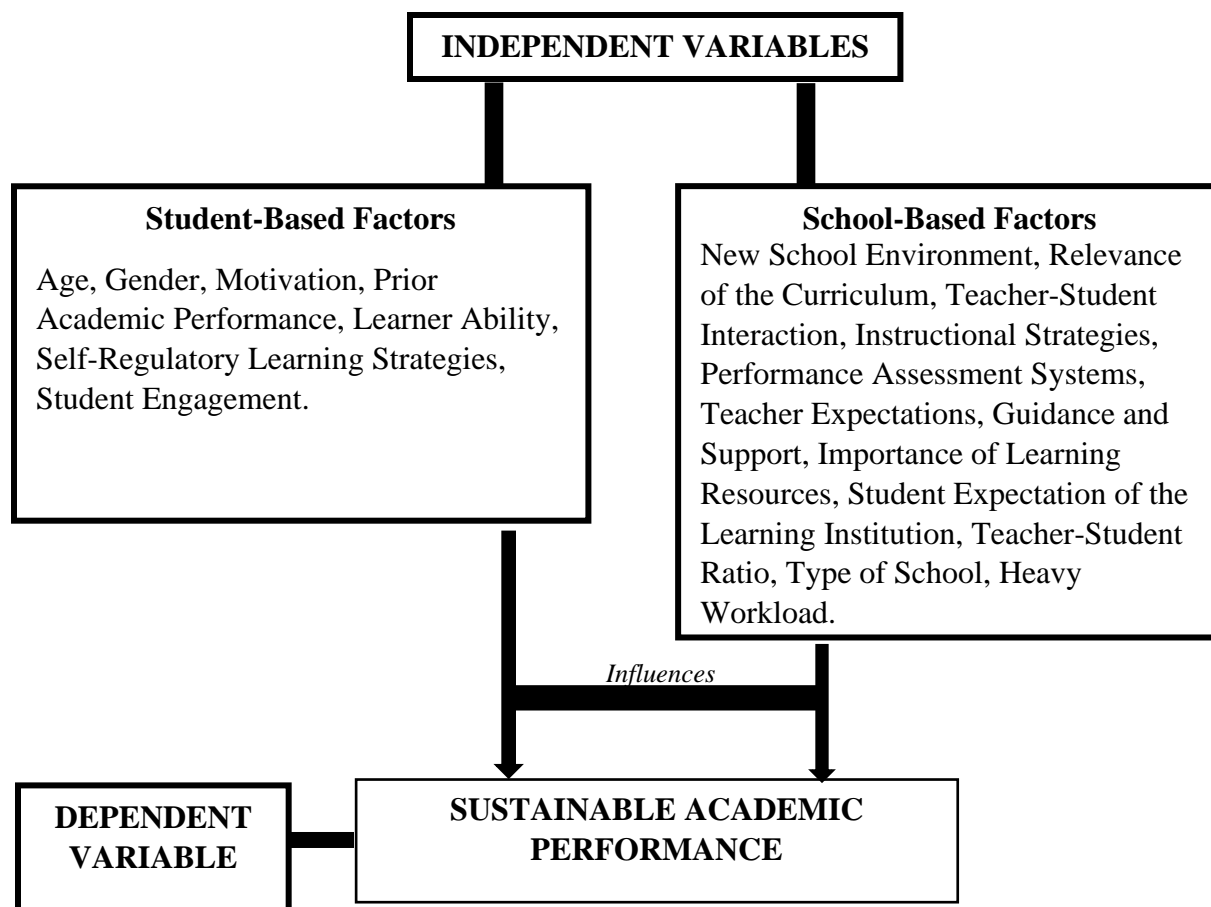
towards underprepared students. Therefore, students must fill both developmental and academic gaps in order to sustain their academic performance and transfer these skills and competencies to the workforce. These theories allow the researcher the flexibility of exploring a wide range of independent variables and identify the most common variables that influence sustained academic performance at the SALCC.

Conceptual Framework

The goal of the study is to investigate the influence of student-and school-based factors on sustainable academic performance of students at the SALCC, St. Lucia. Figure 2.1 represents the conceptual framework used for this study.

Figure 2.2

Proposed Conceptual Model and Factors Influencing Academic Performance



Note. Adapted from *What makes schooling effective? A synthesis and a critique of those national studies. Contemporary Education: A Journal of Reviews*, 1(1), by Walberg, H.J., 1982, p. 2-34.

The fundamental premise of the proposed conceptual framework for this research is based on Walberg's (1981) Educational Productivity Model. The key concept of the Educational Productivity theory proposes that there are nine factors required for behaviour, affective as well as cognitive learning. These determinants include instructional variables (1. quantity and 2. quality), learner characteristics (3. ability, 4. motivation, and 5. development), and environmental variables

(6. classroom, 7. home, 8. media, and 9. peers). Thus, the conceptual framework for this study is based on the following variables, namely: learner characteristics is measured by prior academic performance, learner ability, age, gender, motivation, self-regulatory learning strategies and student engagement. Quantity of instruction is measured by heavy workload while quality of instruction is measured by relevance of the curriculum, teacher-student interaction, instructional strategies, performance assessment systems, teacher-student ratio, teacher expectations and student expectation of the learning institution. Environmental variables are measured by new school environment, guidance and support, importance of learning resources and type of school. These variables can be referred to as student-based and school-based factors as possible predictors of academic performance. In this study, the school-based and student-based factors have been categorized as the input/independent variables, which has been used to investigate sustainable academic performance of students, which is the output/dependent variable at the Sir Arthur Lewis Community College, Saint Lucia.

Concept and Nature of Academic Performance

Performance can be considered a direct consequence of learning. Thus, performance is the primary indication that learning has taken place. According to Yusuf et al. (2016, as cited by Abaidoo, 2018), performance is the change in performance or potential performance, the result of one's experience that is observable or measurable. Consequently, for learning to occur, there must be evidence that a task has been performed. While performance is considerably reliant on learning experiences, it does not suggest that low performance is as a result of a deficiency in learning. Thus, Bandura (2018) argues that it is possible to understand a task and still perform unsatisfactorily. These arguments seem to suggest that apart from learning, there are diverse variables that can impact performance. In academics, performance can be regarded as academic

performance. Moreover, it is how success is measured or the learners' competence in meeting the benchmarks of the governing body including the learning institution. Therefore, the purpose of any academic or learning institution is to ensure that learning has taken place.

Many authors have described the term academic performance. For example, Narad and Abdullah (2016, as cited in Abaidoo, 2018), posit that it is the knowledge gained by learners that is assessed by a teacher's marks. It also includes educational goals developed by both learners and teachers to be accomplished within a particular period. Further, they argue that goals are evaluated by utilizing continuous assessments or final examinations. Similarly, Martha (2009, as cited in Abaidoo, 2018), emphasizes that academic performance is the outcome of a learner's potential in an examination, tests, as well as course work. Abaidoo (2018) opines that academic performance encompasses the achievement of program or course objectives and goals that are expressed through grades. The results of these assessments would indicate the achievement or failure of performance tasks.

Furthermore, academic performance refers to the learners' ability to navigate their studies or complete various tasks provided by their teacher. It is concerned with content and ability, which implies that the learners' competence determines academic performance. This notion is supported by Kapur (2018) who posits that academic performance also takes into consideration how learners engage in their studies and how they approach or accomplish the various tasks provided by the teachers during a specific time or academic period. Yambi (2020) operationally characterizes academic performance as the ability of the learners to demonstrate skills in order to verify that learning has taken place. As a result, standardized test scores, grade point average (GPA), and other academic-related skills such as group work, initiative, problem-solving and analytical skills have become useful when measuring academic performance. Thus, evaluating learners'

performance has been useful in measuring whether learning has taken place. Additionally, it is useful for administering instructional procedures. Ul Hadi and Muhammed (2019) cite assessment of faculty and producing evidence that academic performance may lead to desired outcomes.

Academic performance is an essential paradigm within primary, secondary, and post-secondary education system when determining the successful attainment of academic knowledge and competence (Harris & Nowland, 2021). For instance, Kapur (2018) posits that academic performance fosters self-regulatory attitudes, proficiency in content, and active learning that would prepare learners to function in society. Furthermore, in researching the relationship between academic and job performance, Ma and Wang (2020) contend that it is essential for effective transition to the workplace. Thus, academic performance relates to positive outcomes in education and work. For instance, McCabe et al. (2020) argue that high school grade point average (GPA) is the most fundamental predictor of job performance among first-year employees. Employees who excelled in high school were also successful in the initial year of employment. Additionally, these individuals state that higher intentions to seek job opportunities aligned with their own academic competence, resulting in job satisfaction and placements as well as economic benefits.

There are several definitions of low academic performance. Gentrup et al. (2020) opine that low academic performance or failure is a situation where the learner does not achieve the expected results based on self-abilities. Unfortunately, when this occurs, it can result in an altered personality that affects all other aspects of the learner's life. Similarly, Gentrup et al. (2020) note that while the education system currently considers that the learner has failed if not successful at improving performance, the more significant determinant of academic failure is whether the learner performs below self-ability. As such, Alani and Hawas (2021), from the learner's perspective, define poor academic performance as falling below the established standard.

However, based on the evaluator's cognitive ability, the learner is better able to determine what is the expected or desired performance standard. Thus, the evaluator can subsequently provide different interpretations of the reasons for the learner's performance. Thus, Piquart and Ebeling (2020) regard divergent performance as the gap between actual and expected academic performance.

Generally, the benchmark for acceptable academic performance standards would be from forty (40) percent to one hundred (100) percent, contingent on the subjective standard of the assessor. However, a brief assessment of the actual performance, the examinee, as well as the benchmark for the examination taken, could indicate that the performance was unsatisfactory. Hence, the notion of poor academic performance is relative, and this is contingent on several intervening determinants. For instance, as noted previously, the learner and the assessor may have different benchmarks for poor performance. For academic performance to be understood and appreciated both the assessor and the student must have the same understanding and appreciation of what is good and what is poor academic performance.

Thus, the definitions put forward by these authors show that the fundamental principle of academic performance is the assessment of a learner's competence in the program of study using various forms of measurable outcomes such as, but not limited to, tests, class exercises, and examinations. Conclusively, Gagne (2018) purports five fundamental classifications of learning outcomes that are essential to the learning process. They are cognitive techniques, oral information, intellectual ability, motor skills, and attitudes premised on learning tasks that could necessitate the demonstration of different learning outcomes. Therefore, from the perspective of the study, academic performance is viewed as the cumulative results achieved by a learner at the culmination of a specific academic period in all subject areas relating to the course of study.

While it is fundamental to note that some writers such as Mašková and Kučera (2022) use the term academic performance and academic achievement interchangeably, other writers such as Hew et al. (2020) have offered a clear distinction by positing that academic achievement is a measurement of what was attained by the learner at the end of a degree program. Importantly, it is not a measurement of a single test that constitutes a learner's academic achievement but, rather, it is the learner's cumulative academic performance up to the point of graduation. Thus, a learner's academic achievement or performance can be deemed as reduced, sustained, or improving over a long period.

It is, therefore, critical to have a comprehensive understanding of the variables that are beneficial, or which hinder the academic progress of learners. Identifying the factors which contribute to the academic performance of students can be a very complex and challenging job since there are many variables that can contribute to the quality or level of a learner's academic performance. For example, Early et al. (2020) in their study, confirm that the increased socio-economic status of students, parental education, and gender significantly influence the quality of academic performance.

Predictors of Students' Academic Performance

Researchers have studied several predictors for academic performance. For instance, Alhadabi and Karpinski (2020) cite standardized assessment scores; Kapur (2020) posits general intelligence, Aluko et al. (2018) suggest previous grades; Scherrer and Preckel, (2019) highlight self-esteem and self-efficacy; Roksa and Kinsley (2019) opine financial aid; Khan et al. (2015) assert parental educational attainment; Muller (2018) cites family resources. The above predictors are regarded as non-performance and performance variables. A performance variable is referred to as quantifiable behaviors that result in an overall outcome towards a more complex paradigm.

For instance, according to standardized assessments, a learner's achievement ability or intelligence quotient (IQ) would be deemed a performance variable because it reveals one's level of performance on a specific task. However, a non-performance variable is concerned with unquantifiable behaviors that may affect other non-performance or performance variables. For instance, a learner's self-esteem may determine the significance placed on socialization (non-performance) as well as the likelihood of communicating with others (performance). Thus, an examination of non-performance and performance predictors is essential in order to determine their predictive qualities on academic performance and determine those variables that are conducive to one's academic abilities and successful learning outcomes.

Non-Cognitive Predictors

Research from educational psychology has identified a range of non-cognitive psychometric factors that are indirectly or directly related to academic performance in tertiary education. These factors include motivation, self-regulation, personality, and approaches to learning (Bowman et al., 2019). Personality-based studies have focused on the Big-Five (5) personality dimensions of agreeableness, openness, conscientiousness, extroversion, and stability (Stajkovic, 2018). The research seems to suggest that conscientiousness is the most fundamental personality-based predictor of academic performance (Wang et al., 2019). Wang et. al. (2019), however, argue that setting goals mainly is insufficient but, rather, the capacity to self-regulate learning can be the variance between the achievement, and the non-achievement of goals. It has been recognized that self-regulated learning is a complicated paradigm to explain, as it coincides with several other variables, which include, but are not limited to, self-efficacy, personality, and the development of goals. Palos et al. (2019) reveal that there is an interrelationship between academic performance as well as self-regulation, particularly self-testing.

Cognitive Predictors

Research has found that educational institutions use the grade point average (GPA) system to measure the academic performance of learners during a given semester (Ward & Buttler, 2019). Also, Twidwell et al. (2019) support this notion by confirming that a learner's grade point average (GPA) is a universally used benchmark measurement of academic achievement. Ward and Buttler, (2019) further state, that the value of the GPA does not only include one form of assessment but rather incorporates all the various forms of assessments undertaken by a learner during a specific program of study. At the Sir Arthur Lewis Community College (SALCC), the assessment procedures include, but are not limited to, continuous assessments, final examinations, practicums, class participation, homework, classwork, individual and group assignments, presentations, portfolios, quizzes, and internships as stated in the prospectus of 2010-2011 (Sir Arthur Lewis Community College Prospectus, 2010). The Sir Arthur Lewis Community also utilizes the grade point average system. As a result, this study will adopt the grade point average system as a measurement for academic performance.

A cumulative grade point average (CUM GPA) system is used at the Sir Arthur Lewis Community College to measure a student's academic performance by providing an average score of all the course grades achieved during the academic period of the learner's program of study. Twidwell et al. (2019) support this view by stating that a cumulative GPA is the most critical determinant of an undergraduate's academic performance. Thus, the same sentiments can be applied to a learner's academic performance at the tertiary level of education and beyond. For instance, at the Sir Arthur Lewis Community College (SALCC), the cumulated grade point average (CUM GPA) is the mean score of the course grade points attained by a learner to the number of credit hours for a course (Sir Arthur Lewis Community College Prospectus, 2010).

All courses at the SALCC are assigned credit hours of coverage. Credit hours are the number of weekly contact hours allocated to a course for the fulfilment of the course requirements for the given semester. According to the Sir Arthur Lewis Community College Prospectus 2010-2011, one credit hour is equal to one contact hour of instruction in a week. For example, a three-credit hour course has three contact hours weekly for fifteen (15) weeks, is equivalent to forty-five contact hours of instruction for a given semester. The courses provided at the Sir Arthur Lewis Community College range from two (2) credit hours to four (4) credit hour courses.

When learners are assessed, letter grades represent the scores obtained in any given course, and these are assigned to the learner's courses. The scores range from zero to one hundred percent (0% - 100%), while letter grades vary from A to NG, as shown in table 2.1. However, if a student has not completed a course, the learners will be awarded an AP grade (absent with approval) or AW (absent without approval). Students with an AP grade will be required to produce a doctor's certificate to validate absence from the assessment, and the Academic Board will permit the student to complete an alternative assessment at a subsequent date. However, students with an AW grade will be considered as failing the course because no valid reason was given for being absent during the assessment period. If a student has not completed an assessment in a course, the grade will reflect NG.

Table 2.1*Grading and GPA System*

GRADES	Marks	QUALITY POINTS
A+	90 -100%	4.00
A	85 - 89%	3.75
A-	80 - 84%	3.50
B+	75 - 79%	3.25
B	70 - 74%	3.00
B-	65 - 69%	2.75
C+	60 - 64%	2.50
C	55 - 59%	2.25
C-	50 - 54%	2.00
D-	40 - 49%	1.00
F-	0 - 34%	0.00

Code	Interpretation
R	REFERRAL (student has failed one component of the course)
XM	EXEMPTED (assessed as having passed an equivalent course before)
XR	EXEMPTED (repeated program, has completed the course before)
AP	ABSENT WITH APPROVAL
AW	ABSENT WITHOUT APPROVAL
AU	AUDIT
W	WITHDRAWAL
NG	NO GRADE (course not examined at the end of the semester)

Note. Adapted from *The Sir Arthur Lewis Community College Prospectus*, Office of Institutional Effectiveness, (2010-2011).

The table further illustrates an example of the transformation of letter grades to grade points per-credit-hour. The Grade Point Average (GPA) is derived by multiplying the credit hours of each course by the grade points achieved in the course during the semester. Then, the total points are divided by the total number of credit hours for that period (Sir Arthur Lewis Prospectus, 2010-2011).

Table 2.2

Example of Grade Point Average

Subject	Credit Hours	Grade Points	(Credit hrs. x Grade Points)
MAT	4	3.5	14.0
HIS	4	3.0	12.0
ENG	3	2.0	6.0
SCI	3	3.5	10.5
PSY	3	3.0	9.0
Total	17		51.5

Note. $GPA = 51.5/17 = 3.029$

Note. Adapted from *Sir Arthur Lewis Community College Prospectus*, Office of Institutional Effectiveness, (2010-2011).

The CUM GPA is derived by examining the average score of all the courses completed by a learner to the number of credit hours covered within the program (Sir Arthur Lewis Prospectus, 2010-2011). In the associate degree, diploma, as well as certificate programs, the learner's performance or level of merit is based on the quality point average for-credit courses (Sir Arthur Lewis Prospectus, 2010-2011). The following are the descriptors used for grades at the Sir Arthur Lewis Community College.

Table 2.3*CUM GPA Descriptors*

GRADES		GRADE POINTS
A+	Excellent work	4.0
A		3.75
A-		3.5
B+	Good work	3.25
B		3.0
B-		2.75
C+	Satisfactory work	2.5
C		2.25
C-		2.0
D**	Poor work but passing	1.0
F	Unsatisfactory work	0.0

Note. Please note that a “D” grade might not be regarded as a passing grade for some courses.

Note. Adapted from *The Sir Arthur Lewis Community College Prospectus*, Office of Institutional Effectiveness, (2010-2011).

Prior Academic Performance

There is an assumption that because students have qualified and gained entry into the Sir Arthur Lewis Community College, they are equally prepared to engage with the course material and, thus, excel in their academic endeavours. Admission to the SALCC is granted, based on the learner's prior academic performance at the secondary school level after completing examination

in the Caribbean Secondary Examination Council (CSEC). Thus, learners who obtained passes in seven (7) subjects with a minimum of a grade 3, and above, can gain entry to the Sir Arthur Lewis Community College's full-time programs (Sir Arthur Lewis Community College Prospectus, 2008-2010). However, learners who achieve a grade 4 or 5 in either English Language or Mathematics can gain entry into the College's part-time program. Nevertheless, these learners will be required to complete an access English or Mathematics course. Additionally, they will be allowed to complete three courses within the program of study, for which they are approved during the first semester at the SALCC. Upon successful completion of these four courses, approval will be granted for entry into the full-time program. Failure to meet this requirement, learners will be requested to withdraw from the program and reapply in the next academic year if they have attained the benchmark entry qualifications.

There is a misconception that performance at the post-secondary level is directly proportional to performance at the secondary level. An investigation into the academic performance for the past five years (2014 -2019) at the Sir Arthur Lewis Community College has revealed that approximately (22%) of learners from the Department of Technical Education and Management Studies (DTEMS), the Department of Agriculture (DAGRI), as well as the Department of Arts, Science and General Studies (DASGS) perform below average each semester (Sir Arthur Lewis Community College Probation Documents, 2014-2019). These results reveal that learners achieved a cumulative grade point average (CUM GPA) of below 2.00, which is less than a C grade (Sir Arthur Lewis Community College Prospectus, 2010-2011). These findings suggest, therefore, that prior performance at the secondary level (CSEC examinations), which is the criteria for admission, does not assure a learner's successful academic performance in post-secondary school. This notion is supported by Helal et. al. (2019) who, in their study, observe that

entry qualifications of learners contribute insignificantly to their academic performance in architectural studies. Thus, these observations seem to suggest that other factors are impacting the learner's ability academically, and this is reflected in the learner's performance at the SALCC. As such, these elements may be different from what is obtained at the secondary school level of education. However, there are contradicting opinions from Adekitan and Noma-Osaghae, (2019) in their study of entry standards as a measurement of conceptual knowledge on academic performance. They posit that entry criterion predicts academic performance. Writers such as Aluko et al. (2018) also agree that prior academic performance is the most fundamental predictor of academic performance of students at the tertiary level of education,

Sosu and Pheunpha (2019) posit that students who are enrolled at institutions of higher learning with poor academic performance are more than likely to continue this trend and even drop out of the learning institution than those learners with good entry grades. Learners who perform poorly at the tertiary level would either voluntarily drop out or are involuntarily asked to withdraw from the learning institution. Poor grades at secondary school are seen as a significant factor in the poor tertiary level performance and even student drop out. Students who enter tertiary level institutions with high grades are less likely to drop out than those who enroll with poor grades. Posits that statistically there is significant negative association between poor academic performance and the quality of learners. Learners who achieve high grades at secondary school are more than likely to sustain their academic performance and less likely to experience poor academic performance and drop out of school. Thus, learners who do not comprehend what is required for study at the tertiary level will experience poor academic performance and are more than likely to drop out during their time of study at the learning institution.

Taggart (2018) opines that there are many factors that determine a learner's success at the lower levels of education, particularly at the primary school and the secondary school level of education. It was stated that these factors include the teacher's control and responsibility for the learning process, in addition to activities performed by learners, as well as assessments undertaken in order to monitor and assess the learner's progress towards the completion of tasks. Additionally, the teacher controls how the learners learn the information, thus creating a learning environment where learners are motivated to learn through extrinsic rewards and verbal praise. Taggart (2018) goes on to state that external sources such as teachers, parents, and administrators set objectives and goals for learners at the lower level (primary and secondary), providing learners with insufficient opportunity to regulate the learning process. According to Taggart (2018), there is a self-regulation deficit found in the transition from a high external participation in the lower levels (primary and secondary) to the utterly autonomous learning environment experienced at the tertiary level of education.

The transition from secondary school to the tertiary level of education, according to Van Rooij et al. (2018), places a higher demand on the learner instead of the aforementioned external forces. They continue to argue that this transition involves a change from declarative knowledge towards an emphasis on a higher level of conceptual skills, typical at the tertiary level. Van Rooij et al. (2018), continue by highlighting the variance between what obtains at the secondary level of education and that of the tertiary level. They posit that successful learners at the tertiary level have realized that lecturers expect them to use the conceptual skills rather than memorizing information given to them. Additionally, successful learners, while studying, use appropriate metacognitive monitoring skills as a way of determining competence in a particular learning material. Moreover, there is a wide range of self-regulatory learning strategies that are available to these successful

learners, which they can choose from, relative to the learning demands of the performance task, such as time management and using the most conducive problem-solving strategy. Learners can self-monitor the level of comprehension and requirements of the task during the evaluation phase, and subsequently modify understanding of the course material.

Additionally, while good grades are obtained with minimal effort at the secondary level, the same does not occur at the tertiary level of education. Thus, at the tertiary level of education, minimal effort would result in poor academic performance. Further the forms of assessment at the tertiary level of education would vary depending on the course of study pursued. For example, some courses would require the completion of a mid-semester and end of semester examination. Others may include group work, presentations, portfolios, or weekly evaluations.

Within the secondary education system, learners are expected to develop a comprehensive understanding of a broad range of subjects, while at the tertiary level, learners are exposed to wide range of specialized courses in their field of study and are expected to get a deep comprehension of these subjects. Additionally, learners are required to source their own learning materials which can be very costly, take copious notes during lectures and conduct their own research during their spare time utilizing supplementary learning material, while at the secondary level, learning materials are readily available to learners. Moreover, at the secondary level of education, teachers are readily available to answer questions and clarify any misconceptions learners may have about the learning material. However, at the tertiary level, teachers are only available during their scheduled office hours by appointment to address any issues or misconceptions learners may have. This can be a disadvantage to learners since they may not be available at the scheduled office hours of their lecturer and thus can result in learners not getting the support that they need.

At the secondary level of education, key stakeholders such as teachers, parents, and counsellors give advice to learners and often make decisions for them. However, at the tertiary level, learners are forced to become self-reliant and as a consequence experience the outcomes of their good and poor decisions. Thus, at the secondary level of education, students have the expectation that their parents will provide them with the support that they need at that level, particularly in their time of crisis. However, at the tertiary level, learners have more liberty and thus learn to take responsibility for their actions. This would necessitate that learners be abreast with their assessments and attend their assigned classes. It must be notable at that the tertiary level of education it is not the lecturer's responsibility to remind learners to attend classes nor submit their assignments. It is also important to note that at the tertiary level, many learners have part-time jobs to assist in meeting their financial and academic needs. It is the responsibility of learners who are in these situations to prioritize and manage their time appropriately. Further, at the secondary level there are minimal interruptions from schoolwork. Conversely, at the tertiary level of education, there are more opportunities for learners to be more distracted from their academic pursuits. Thus, at this level of education, the number of contact hours varies depending on the course of study. For example, a course may necessitate that learners are present at school only three times a week with the remainder of their time dedicated to further study at home. Having reduced contact hours provides learners with the opportunity to gain part-time employment or gain work experience.

Thus, to be successful, learners at the tertiary level of education require a radical adjustment from childhood to adulthood as well as from passive to active learners. Additionally, the availability of teachers, as well as physical facilities, though required, are not as important as the learner's ability to use the learner's own initiative and being more responsible for self-learning at

the tertiary level. Variances in studying strategies that contribute to success at the high school level as well as at the tertiary level. This is attributed to the emphasis on meeting the academic demands in high school and post-secondary education. Therefore, to achieve optimum results, necessitates a seamless movement from high school to tertiary education. It is critical, therefore, to promote institutional policies and practices that foster a learning environment whereby learners are responsible and actively engage in the College environment. Hence, there is a need to prepare learners while in the secondary school setting for the transition.

Different writers conceptualize the term transition in different ways, thus making it difficult to provide a single shared definition. For example, Lindmark et al. (2019) define transitioning as the process or movement from one stage, situation, or place to another. Ecclestone (2006, as cited in Gravett, 2021), posits that a transition is a process of existing and developing. O'Shea (2017) argues that this movement necessitates revision in recognition and agentic association. Goodman et al. (2006, as cited in Karmelita, 2018), posit that a transition is an occurrence or non-occurrence that results in altered relationships, assumptions, routines, and roles. Everyone goes through episodes of change as they navigate through life. However, depending on the circumstances, some people are of the opinion that change can be either negative or positive. Goodman et al. (2006, as cited in Karmelita, 2018), continue to explain, that to understand an individual's transition necessitates an appreciation of the context, type, and impact of that transition.

While some transitions may be extremely easy, if not handled properly, change can leave one in a state of disequilibrium. This is even more critical in the field of academics. Schlossberg's (2021) transition theory, also referred to as adult learning theory, posits that there are three types of transitions that adult learners may go through, namely: anticipated, unanticipated and non-events, which can impact a learner's transition. For example, an anticipated event occurs

expectedly, for example graduating from secondary school. An unanticipated transition occurs unexpectedly, for example the realization that learners have that they are unprepared for college-level work. Non-event transitions are those which the learner anticipated would happen but did not happen, for example learners' inability to sustain their academic performance at post-secondary level of education with that which was obtained at the secondary school level.

Schlossberg's (2021) transition theory also suggests that adult learners go through three stages namely: moving in, moving through, and moving out. Goodman et al. (2006, as cited in Karmelita, 2018), endorse the views of Schlossberg and offer an explanation of these three phases. Goodman et al. (2006, as cited in Karmelita, 2018), posit that as learners enter into a novel situation there is a need to familiarize themselves with the norms, rules, and expectations. Once this is understood, learners should learn how to cope with their new circumstances. Moving out refers to ending one transition and conceptualizing the next stage in one's development.

Schlossberg (2021) puts forward a framework of four S's which the writer believes would facilitate an understanding of adult learners in transition. The first S refers to the learner's situation. This may vary based on what triggered that transition, its timing, the amount of control the learner has over the transition, the learner's new role in the new learning environment, the duration of the transition process, the learner's assessment of the transition, the learner's previous experiences, and also identifying other stressful situations in the life of the learner. For example, a learner's circumstances may very well impact the accessible support, available resources, or the procedures they apply as they navigate through the transition process.

The second S refers to as the learner's self. In this regard, the learner's mindset, as well as demographic and personal characteristics, will be assessed. The learner's demographic and

personal characteristics include his or her outlook on life as well as other student-based factors like gender, socioeconomic status, ethnicity/culture, life cycle stage, age, and health status.

The third S references the support provided to learners and the influence it has on the learner's ability to adjust to the new learning environment. This support can be categorized as student-based (family and friends) and/or school-based (institutional support). The lack of support or inability to access support can negatively impact a learner's transition into post-secondary education (Schlossberg, 2021). Learners who choose not to seek support and embark on taking personal action to improve their outcome may discover this to be an ineffective method of coping and, for some, would result in procrastination or may lead to abandonment of school altogether.

The fourth S refers to the strategies which can be employed to assist learners in coping with their new learning environment. It is notable that learners cope best when they remain flexible and utilize multiple coping methods (Schlossberg, 2021).

Cross (2021), in his theory, identifies three barrier categories namely: situational, institutional, and dispositional, which complement Schlossberg's transition theory. Cross's (2021) situational barriers can be categorized as student-based and school-based factors. Student-based factors include, but are not limited to, financial status, employment, and familial responsibilities as well as transportation and childcare. School-based factors include, but are not limited to, unintentional institutional barriers or formal programs (Cross, 2021). For example, the lack of an established policy to provide support to disadvantaged and low academic performers. Dispositional barriers refer to the learner's mindset or attitude as it relates to his or her lack of dedication, self-confidence, fear of change or regret due to time spent in school rather than with family, an ailing or family member with disabilities. One criticism of Cross' (2021) theory, is that

based on the uniqueness of each learner, barriers cannot be fully categorized as one category (Cross, 2021).

While Schlossberg (2021) theory can be a useful tool in providing support to learners, one criticism is that to be effective, it should be applied on an individual basis (one-on-one interaction between the support staff and the learner). This is because each learner's situation is different and would necessitate a different approach for each learner. This would, therefore, require an inordinate number of resources (academic advisors, student affairs department and staff) to meet the demands of the learners. However, in the context of developing countries, such as St. Lucia, where government's annual financial subvention has been on the decline, it would be a challenge for the SALCC to be able to access the necessary resources and support to provide individualized care and attention to all students. Hence, to be effective in this case would require identification of students who are deemed at risk (students that lack the necessary resources and are below average academic performers) and provide the necessary support to them. This would mean that learners who are at risk and in a state of transition from secondary school to tertiary education can be assessed by applying Schlossberg's (2021) framework. In doing so, support staff and learners can work together to highlight the learner's ratio of assets to liabilities which would impact their transition. That is, the learner's internal and external resources (assets) or lack thereof (liabilities) and to develop strategies which can be utilized to manage the learner's transition. If the assets outweigh the liabilities this would be an indication that the transition would be relatively easy. However, if the liabilities outweigh the assets, this would be an indication that managing the transition would be challenging or difficult. Additionally, the institution should provide a suite of resources that learners can access.

It must be noted that learners entering post-secondary education are at diverse stages in their development either academically or psychologically or both. While some learners are prepared for college-level work, some learners find it difficult to make the transition. While some learning institutions provide orientation programs for learners entering the new learning environment, more attention should be focused on programs aimed at assisting learners as they enter, during their tenure and as they exit the learning institutions into the workforce. It is, therefore, unreasonable to make blanket assumptions about the needs of learners because each learner is unique. Schlossberg's (2021) theory considers the uniqueness of each student and can be used to provide guidance to learners as they go through the transition process with aim of fostering better learning strategies, learners' development and growth tailored to their unique experiences regardless of where they are or what stage they are in their development. In the case of the SALCC, with limited resources, a hybrid model to Schlossberg's (2021) transitioning theory can be applied, in that, coordinators (academic advisors and support staff) can work with small groups of students instead of implementing nothing at all.

Thus, to make a seamless transition from secondary school to post-secondary education, it is essential to comprehend the factors which contribute to academic performance at the tertiary level. Various writers have identified several performance and non-performance factors that influence or predict the academic performance of students in tertiary education. For example, Sharma and Pandey (2017) suggest stress, anxiety, and health; Bhatt and Bahadur (2020) suggest motivational levels; Bhatt and Bahadur (2020) cite self-efficacy; Allin et al. (2017) assert social integrations; Hawkins et. al. (2021) posit study skills and habits; Yusuf et al. (2018) purport prior academic performance; Affuso et al. (2022) academic support, orientation and adjustment to the learning institution as well as one's choice of courses; Kapur (2018) cites intellectual capabilities

and notes interaction with lecturers; Magulod Jr (2019) cites attitudes; Muller (2018) financial support; Obilor (2019) highlights teaching strategies; Sari and Suryani (2020) postulate students' background; Ranjeeth et al. (2020) posit gender; Palacios et. al. (2018) propose age. The arguments put forward by these writers suggest that academic performance is influenced by an integration of variables. These variables can be classified as student-based and school-based predictors of academic performance, thus, influencing good or poor academic performance at the tertiary education level.

Influence of Students' Ability Level on Academic Performance

Cognitive ability plays a significant role in academic performance. It is the most critical predictor of academic performance (Jenson, 1998, as cited in MacCann, et al., 2020). However, on its own, it is insufficient to determining academic performance in universities (Jenson, 1998, as cited in MacCann, et al., 2020). This signifies that there is a limited connection between cognitive ability and academic performance at the post-secondary level of education, as against either the primary or secondary school level of education. It appears that the academic performance of students transitioning from primary to secondary and tertiary levels of education are impacted by many variables.

A study by Locke and Lothan (2019) posit that a learner's ability has a direct and indirect impact on academic performance. A learner's preferences in activities, level of intent and persistence in times of adversity have a direct effect on the individual's ability (Ward & Buttler, 2019). Moreover, a learner's degree of self-efficacy and individual goals have an indirect influence on his or her ability, as supported by Bandura (1977, as cited in McLeod, 2017) who defines self-efficacy as one's judgement about his or her capacity to perform a required goal. As such, learners' intention, their prior knowledge, skills, achievements, convictions about their capability, all impact

their performance (Bandura, 1977, as cited in McLeod, 2017). For instance, according to Locke and Lothan (2019), the beliefs about how learners develop their academic capabilities determine how they apply the knowledge and skills they possess.

Consequently, their academic performance reflects what learners have accepted about their level of achievement. For instance, Ward and Butler (2019) argue that learners who perform exceptionally well at high school, with a high GPA, were more apt to be better positioned to transfer these learning experiences more desirably thereby enabling them to maintain a high, grade-point average (GPA) at the end of their first year of college.

Moreover, these learners would be more academically engaged, have positive perceptions of learning, and display a more substantial commitment to the learning institution than those who obtained lower high school grades (Kapur, 2018). This argument, though, may not necessarily hold, for instance, in this study, learners assume that their success at the Caribbean Secondary Examination Certificate (CSEC) examinations at the secondary school level can automatically be duplicated at the tertiary level of education. This assumption is not supported by the statistics of the Sir Arthur Lewis Community College (SALCC). It is thus perceived that there is a variance in learner performance despite their comparison in ability. It is also noteworthy that learners with low academic abilities could do as well or, even better, than their colleagues with high academic profiles because they are more engaged in the learning environment. Thus, the implications of this are that there would be a need to review the criteria for selection of students for study at the SALCC. Learners with a high self-efficacy, therefore, can continuously improve their academic performance whereas learners with low self-efficacy can decrease theirs (Alhadabi, & Karpinski, 2020). Hence, learners with high self-efficacy perceive that they possess the required competencies and skills to excel at academic tasks and perform better than their counterparts with

minimal efficacy expectations (Bandura, 1977, as cited in McLeod, 2017). Efficacy expectations, in any task, would be dependent on learners' experience. In situations where challenges are similar, learners can draw from prior experience to develop expectations about performances. This is regarded as performance self-efficacy (Kapur, 2018). Conversely, when confronted with unfamiliar challenges, performance must be anticipated based on a more comprehensive representation of related competencies. This is regarded as academic self-efficacy (Kapur, 2018).

The practice of streaming learners, according to their academic abilities or age, has been customary for many years. This practice seems to be more prevalent at the primary and secondary levels of education, where the learning environment is teacher centered. Research has shown the advantages and limitations of both methods of grouping. For instance, students' performance can improve when they are grouped according to their academic abilities. In this scenario, teachers spend less time on one subject and can introduce multiple concepts in a short period. Possessing the same academic ability also encourages social interaction among learners, fosters leadership skills, increases learner self-esteem, encourages excellence, creates a competitive environment, encourages collaborative learning, and reduces disciplinary problems in the classroom.

Slavin (2018) argues that grouping students according to academic ability in all subjects does not improve academic performance and can underscore the differences in their cognitive ability. In doing so, learners with lower academic ability can feel isolated and demotivated. They may also get accustomed to working at a level that may be below their capacity. Slavin (2018) concludes that grouping learners according to their academic ability requires continuous review of students' competencies to allow for the reassignment of students who have improved their academic performance.

When students are not streamed based on age, irrespective of their academic ability, with varied ages throughout the classroom, younger learners can use older learners as mentors. Additionally, older learners can consolidate their learning by tutoring younger learners. Consequently, the interest expressed by the older learners may be replicated in younger learners. However, the teacher's progress in the lesson is affected. In this situation, when additional time is spent on individual learners, others can become less enthusiastic and disengaged. Thus, if the teacher is not competent in tutoring learners with diverse degrees of development, the more advanced learners will not develop to their fullest potential, and the less competent ones will lag farther behind.

At the lower levels of education, teaching is predominantly focused on transferring knowledge and skills in subject areas such as numeracy and English, known as crystallized intelligence (Cattell, 1967, as cited in Johnson, 2017). Conversely, at the tertiary level of education where learning is student-centered, a higher order of thinking is required. Here, learners are required to develop and use their metacognitive skills to think critically, solve intricate problems, and become productive citizens. This is referred to as fluid intelligence. To be able to transition successfully into the workforce requires critical thinkers and problem-solvers who can impact the 21st Century society and the economy. Thus, a significant correlation between intelligence and academic performance would indicate that learning institutions that are considered effective at promoting academic performance can also promote domain-independent intellectual skills. It is acknowledged that other intervening variables may impact a learner's academic ability and academic performance. One example of such a variable is child development.

Correlation between Child Development and Academic Performance

To understand the connection between child development and academic performance, one must first examine the fundamental theories of human development. While Peng and Kievit (2020) have categorized human development into five primary theories, namely: behavioral, psychoanalytic, biological, contextual, and cognitive, only two main theories focus on students' age and cognitive development. They are behavioural and cognitive developmental theories (Peng & Kievit, 2020). Schunk and Greene (2017) define readiness to learn as the capabilities of learners at varied points in their development. This is supported by Piaget (1970, as cited in McLeod, 2018) who posits that a child's developmental foundations progress to achieve full cognitive development. Schunk and Greene (2017) continue to argue from a behavioural perspective that children go through these stages at roughly the same time. Piaget (1970, as cited in McLeod, 2018) however, argues that a child's stage of development is not directly equated with age. This view is supported by Palacios et al. (2018) who suggest that children with the same chronological age may vary in terms of their developmental and mental age. Legally, school readiness is determined by the age of a child.

School attendance in Saint Lucia is mandatory from ages 5 to 16 (universal schooling), but learners can opt to pursue post-secondary level education upon completion. The structure of the education system includes the following levels of school: preschool (ages 3-5) which is optional, infant (ages 5 to 7), junior primary (ages 8 to 10), secondary (ages 11 to 16), and post-secondary (ages 16 and above).

Preschool, however, is generally only accessible as paid service by parents. At this level, learners are taught cognitive, physical, creative, spiritual, and socio-emotional developmental skills. Upon completion of preschool, there is no formal assessment to determine a learner's

readiness or competence to transition to infant school, but rather, progress if they have met the age requirement.

Unfortunately, some schools define academic success as a child's capacity to accomplish a task based on a criterion-based assessment. For example, in the case of St. Lucia, learners must complete the Common Entrance Examination (CEE) to determine placement at the various secondary schools at the end of the seventh grade. All those who complete the CEE will gain acceptance to a secondary school where they are expected to complete a minimum of five years of study from a cross-section of disciplines.

In 2006, St. Lucia legislated universal access to secondary education, which assured entry of every primary school child taking the CEE a place in a secondary school, irrespective of ability. However, the distribution of students into the various secondary schools is done based on students' cumulative examination score at the CEE, the number of spaces in the various schools that are ranked academically, and parents' choices of schools. A student wishing to gain entry into a high-ranking secondary school and meets the requisite scores will be placed at the school identified. Secondary school graduates who perform satisfactorily on the Caribbean Secondary Education Certificate (CSEC) examinations may pursue higher education at the island's lone tertiary level educational institution, the Sir Arthur Lewis Community College, or seek other post-secondary learning institutions abroad.

Regardless of the definition of school success, although traditionally the use of chronological age is a predictor for school entry, a developmental approach is required to examine the needs of a child, as well as to assess the progression of the person's development. While a child's chronological age is associated with school readiness, his or her maturity age is correlated with learning-readiness or academic performance. Palacios et al. (2018) agree that students who

are emotionally mature may perform better academically than younger, less mature students. Thus, Palacios et al. (2018) operationalize the definition of readiness as a learner's academic competences and behaviour. Cognitive theories argue that children actively conceive or develop their understanding by interacting with their environment, including the people and objects in it (Palos et al., 2019).

There are two categories of student-learners found at the SALCC: the traditional learners attend community college after graduating from secondary school, ranging from 16-18 years of age; and non-traditional learners who exceed 19 years of age and gain entry to the SALCC, years after graduating from secondary school, most of whom had been previously gainfully employed. The academic entry requirements of non-traditional students are comparable to those of their traditional counterparts. There are academic variances between these adolescents and adult learners, and these distinctions are based on cognition and psychosocial differences which also affect their academic ability.

Mario (2019) argues that there is an indirect influence of age on academic performance. The writer proceeds to state that support-seeking, notably, moderates the influence of age on academic performance, while entry criteria adversely moderate the impact of age on academic performance. Thus, a mature learner would seek support when necessary, and this would positively impact their academic performance. Additionally, several older students may gain entry into the learning institution with lower grades than traditional learners, and, as such, would negatively influence their academic performance, particularly in the initial year of study. Mario (2019) posits that older students' deep learning approaches can indirectly impact their academic performance. Moreover, the presence of mediators can subsequently impact academic performance. Therefore, age has the propensity to have both a direct and indirect impact on academic performance. Further,

Palacios et al. (2018) posit that a learner's readiness for school is predetermined by their age and not their level of maturity, even though many states consider the learner's birthdate as the benchmark for entering school, their maturity should be a consideration.

During the formative years, parents and caregivers' role is fundamental to a child's overall development, including motor, physical, emotional, language, social, and cognitive development. By providing a stable home environment and facilitating healthy growth, parents nurture development. Conversely, an unstable home environment where, for instance, violence is prevalent or evident, can have a negative influence on the learner's academic performance as well as his or her outlook on life. Thus, the family is significant in the child's learning and maturity as well as the positive role of the parent in his or her child's education.

Moreover, according to UNICEF (2012), a conducive home environment and parents who are supportive are the strongest proponents of academic performance particularly at the primary level of education and beyond. Parents' educational aspirations for their children are essential for academic success because of their principles and attitudes toward the commitments to education. Parents' beliefs and expectations explain the strong connection between maternal education accomplishment and child cognition (UNICEF, 2012). For instance, parents' expectations of what is educationally viable for their children may be different from the expectations of the school because of the parents' social, cultural, and religious backgrounds.

Consequently, these parents may not permit their children to engage in pursuits that they think are not important to their child's development, for instance, participating in classes such as health and family life or religious education. Thus, a supportive and responsive parent-child relationship is the foundation of the emotional, cognitive, and social development that are essential for the child's success. Thus, parents must understand the significance of education for their

children, understand that their attitude can influence the child's development and learning at school, and provide support and encouragement, particularly at the primary level of education.

An adolescent, according to The World Health Organization (2007), is an individual between the ages of 10 and 19. However, Kiuru et al. (2020) posit that the transition to adolescence often involves a potential risk for some students' academic success to decrease. Therefore, identifying the factors that promote academic competence is critical. Academic ability can predict the probability of adolescents to pursue their educational and career opportunities. It increases their well-being, motivation, and accomplishments (Kiuru et. al., 2020). However, according to Pascoe et al. (2020) poor academic performance can predict low levels of motivation, lack of self-esteem and high levels of attrition.

A considerable number of studies have been conducted on the relationship between parents and children in adolescent development. According to Barger et al. (2019) adolescents who are competent have parents who are firm yet encouraging. Moreover, these learners exhibit an increase in their academic performance and are able to adjust seamlessly. Barger et al. (2019) continue to posit adolescent learners who have the support of parents, teachers and friends tend to perform better at school when compared to those learners who do not receive support. It is in this light that Roksa and Kinsley (2019) posit that perceived family support and recognition is a predictor of academic achievement. This view is supported by Liu et al. (2019), who argue that the support of older siblings may influence the academic performance of younger siblings. This is because children spend an inordinate amount of time with each other therefore allowing older siblings to have more influence the academic success of younger siblings (Wang et al., 2019). Therefore, children who have a good connection with their siblings would more than likely receive

encouragement, affection, and support, resulting in competence, assertiveness, and self-esteem (Roska & Kinsley, 2019).

Barger et al. (2019) discover that sibling relationships and favourable qualities are associated with the academic competencies of adolescents that could influence academic performance. This is supported by Wang et al. (2019) who conclude that siblings could aid adolescents to improve their academic performance. For example, when siblings play with each other, the senior sibling assumes the teacher's role, while the younger sibling assumes the learner's role. In doing so, they are both better positioned to identify each other's competencies and limitations, consequently, becoming more productive learners and teachers. Moreover, sibling tutors provide more explanations, definitions of concepts, and descriptions better than peer tutors (Cicirelli, 1972, as cited in Maynard, 2019).

Sibling relationships also have the potential of having an adverse impact on adolescent development. For instance, younger siblings who grow up with senior, destructive siblings, are at risk of cultivating poor relationships at school, creating problems, and performing poorly. This can lead to anti-social behaviour and personal adjustment setbacks during adolescence (Sudjiwanati, 2022). Consequently, these young adolescents would be at risk of seeking out deviant peers and also engage in deviant behaviours.

As adolescents transition to post-secondary education, they become less reliant on their parents than on their peers. They seek out peers for emotional support while simultaneously developing their own identities. According to Barger et al. (2019), it is important to note that positive peer attachment in late adolescence is connected positively to well-being, self-esteem, and school achievement. Therefore, seeking out positive peers would reduce the likelihood of developing negative attitudes toward school. Bahar (2010), however, concludes that there is no

connection between peer support and academic achievement. Generally, students who are accepted by their peers perform more competently than those with low acceptance.

Barger et al. (2019) posit well-adjusted and socially competent can serve as positive role models. However, learners with friends that are destructive and who frequently mistreat them are in danger of psychological setbacks and low education success (Raabe, 2019). Thus, peer relationships can have a direct impact on adolescent academic achievement.

Moreover, adolescents who have a sound relationship with their parents will demonstrate the same connection to other relationships, such as peer and sibling relationships. However, adolescents may turn to a different relationship to fill the void if there is a desired lack of affection. Unfortunately, some of these relationships can lead to harmful, deviant, and criminal activities, resulting in poor academic performance and subsequently withdrawal from school.

Writers and theorists on academic ability and child development have all agreed that these variables on their own, or together, can impact academic performance. It is also notable that the support or lack of it by parents for a child, from birth to adolescence, will impact the child's learning process, motivational level, attitude, social ability, self-esteem, self-efficacy, and cognition, to name a few.

The formative years of a child are considered a fundamental part of child development. For example, a child's ability to attend preschool will be determined by the economic standing of the parent as this service is primarily offered by the private sector. As such, many parents are not able to afford to send their children to preschool to get the basic training that is essential for the child's development.

Thus, the ability of a child to access training in their formative years would have a positive impact on their development as those years would help expose them to the necessary skills and

competencies that are essential to make a smooth transition when they get to the infant school level, for example, collaboration, cognition, language, and behavioural skills. As such, the Government of Saint Lucia may have to consider a child attending preschool as part of their universal education policy, which would allow more children to attend preschool to better prepare them for infant school and beyond.

Additionally, the maturity age of a child should also be a consideration when evaluating a child's preparedness for school. Learners are considered to be emotionally mature and are able to use the metacognitive skills that they have developed over time, which are vital to their academic competence. Issues such as self-efficacy, self-esteem as well as cultural and religious differences can have an influence on academic performance. The cultural and religious beliefs of households may prevent some students from participating in certain educational activities, hindering the development of the child in one way or another. This can have an adverse impact on a child's self-esteem and self-efficacy, as not possessing that experience limits the child's ability to perform the necessary tasks.

Finally, streaming children based on academic ability or age has been an ongoing issue. While some educators posit that learners should be streamed based on age, others argue that academic ability should be of paramount importance. Many schools today have discovered advantages of implementing both academic abilities grouping and age grouping in the classroom. However, educators, learning institutions and Government, must exercise a proper balance when adopting the concept of grouping in the learning environment. If implemented, grouping should allow for re-evaluation of learners' ability to allow for the reassignment of students who have improved. Moreover, it should encourage collaboration among peers, encourage leadership and student-centered learning, reinforcement and improve academic performance and child

development aimed at ensuring and promoting sustainable academic performance. The right balance of positive peer relationships, parental and sibling support and reinforcement is what is essential for sustainable academic performance in post-secondary education.

Students' Characteristics, Motivation and Academic Performance

Generally, learners who pursue post-secondary education come from various socio-economic backgrounds and learning experiences, which can influence their academic performance. In order to understand their influence on academic performance, this study discusses student-based characteristics namely: gender, personality, socio-economic status, attitude, and goals.

Gender

Gender is an important variable in academic performance literature. The influence of gender is a contentious issue in studies of school effectiveness. Research shows that there are discrepancies in the association between gender and academic performance of undergraduate learners. Some of these inconsistencies include, but are not limited to, time management, motivation, culture, peer relationships, area of study and family life.

In recent literature, Ranjeeth et al. (2020) posit that female learners outperform their male counterparts. According to Berger and Milem (1999, as cited in Rucks-Ahidiana & Bork, 2020), this is attributed to female learners exhibiting better study habits, time management skills and peer engagement compared to male learners. Thus, efficiency in time management and increased engagement with peers aided in elevating their level of motivation and their participation in school activities. Moreover, female learners appeared to be more academically conscientious than their male colleagues and were less likely to be truant at school.

Within the context of culture, in some family structures, the father's role in a child's education is important. Fathers who are highly educated exert much influence on a child's motivation to learn. Bhatt and Bahadur (2020) confirm the significant association between motivation and academic performance. The influence of gender, however, is impacted by other confounding variables. This can be a mediating consideration in determining the variance between male and female academic performance. In some cultures, the male child receives greater encouragement than a female child to aspire to higher education. In other cultures, females can be overwhelmed by domestic responsibilities to the detriment of their academic performance. Also, the female's role in some societies can contribute to their low academic expectations which can negatively affect their academic performance (Ranjeeth et al., 2020)

However, a study by Reilly et al. (2019) reveal no gender variance in relation to study progress, study time, grades, level of satisfaction and course ratings. Goni et al. (2015) posit that there is no considerable impact on the first year of study for undergraduate learners. Notwithstanding, Reilly et al. (2019) note considerable reduction in the influence of gender as students progressed through latter years of their academic journey. Nonetheless, irrespective of gender, learners who spent more time studying appeared to be more committed and satisfied with their program of study and thus reported considerable learning progress. Thus, Reilly et al. (2019) in their study, discover that gender was not a fundamental variable.

Ranjeeth et al. (2020) posit, that at the university level of education, generally, females perform better than male learners. Shoaib and Ullah (2019) even go on to argue that females outperformed their male counterparts in predominantly male dominated subjects. Contrary to this opinion, reveal that male students outperformed their female colleagues in almost all areas of study which they attributed to culture rather than a gender issue (Moè et al., 2021). However, Sampasa-

Kanyinga et al. (2019), in their study, reveal that gender has no significant influence on academic performance. It must be notable that the ability of female students to outperform their male counterparts is a trend that is not only limited to the developing world but also a norm in the developing world (Ullah & Ullah, 2019).

Personality

Personality is concerned with the variance in the way one feels, understands, and behaves and is essential to how we comprehend and engage with the world. In the educational context, personality is fundamental to how knowledge is developed, in directing individual's choice, participation in intellectually stimulating activities and situations.

Personality traits are classified differently, for example the Eysenckian Model and the Five Factor Model (FFM), also referred to as the Big Five Personality Model (BFPM). Stajkovic et al. (2018), note, that this model is the benchmark in the area of behavioural and psychological research. The BFPM is considered one of the most fundamental frameworks for comprehending the association between diverse personalities and academic performance.

The Eysenckian Model focuses on why people differ, while the BFPM focuses on how people differ. This study adopts the BFPM model. This model provides five dimensions of personality which impact academic performance in different ways, namely: conscientiousness, extraversion, neuroticism, agreeableness, and openness to experience.

Conscientiousness

Blickle et al. (2020) regard conscientiousness as the most consistently connected to academic performance. Tomšik (2018) in his study aims to determine the relationship between the Big Five Personality Model and GPA. Tomšik (2018) posits that conscientiousness was the only variable which had a significant influence on GPA. Writers such as Stajkovic et al. (2018), agree

to its relevance in primary, secondary and tertiary level education, particularly in the first semester of instruction when regulated through self-regulatory learning approaches. Students who score high on conscientiousness are self-disciplined, careful, thorough, organized, determined, academically motivated, employ problem solving strategies, are highly task-focused and attend classes unlike their non-conscientious colleagues. Each of these qualities is positively associated with academic performance (Stajkovic et al., 2018). Learners who score low on the conscientiousness spectrum are indisciplined, careless, disorganized, and indifferent. The more conscientious the learners, the greater the likelihood for them to complete their educational program.

Extraversion

Stajkovic et al. (2018) posit that extraversion is one's preferred social environment. This active engagement, assertiveness, and sociability, with the social environment characterizes extraverted learners as being predisposed to learning that includes constant engagement with peers or teachers. Extraverted learners are better poised to seek assistance from peers and teachers to solve learning setbacks (Stajkovic et al., 2018). This can have a favourable influence on the learners' academic status. Stajkovic et al. (2018) opine, that learners who have high extraversion are more academically inclined and excel at their learning goals. They further state that these learners spend more time with their peers and participate in extracurricular activities. However, these same characteristics can be a challenge to the extraverted learners as they may perform poorly because of their sociability, distraction, and impulsiveness. For them, there is an inverse correlation between extraversion and academic performance. However, at higher levels of education, the inverse correlation between extraversion and academic performance is diminished because learners are more accountable for their own learning.

Introverts are on the extreme end of the spectrum. They are more organized, less socially preoccupied and concentrate more, all of which enhance academic performance. This is supported by Stajkovic et al. (2018) who posit, that students who are introverts have a greater capacity for consolidating their learning, decreasing distractibility and cultivate better study habits.

Agreeableness

Stajkovic et al. (2018) posit, that agreeableness is the propensity to act selflessly rather than taking advantage of others. Further, it pertains to one's ability to get along with others, for instance, learners with their peers and teachers, and teachers with parents. Learners who score high on agreeableness scale are affable, cooperative, and trusting. These learners are more likely to accept and commit to the values of the learning institution allowing them to appreciate the relevance of their academic performance. Additionally, agreeable learners would demonstrate interest, persistence, and focus. They spend more time on their work, engage in self-regulatory learning strategies and procrastinate less. On the opposite side, learners who score low on agreeableness spectrum are unfriendly, skeptical, unsympathetic, uncooperative, and rude. Such learners are expected to perform poorly at school. Thus, agreeable learners are more motivated and exhibit the type of behaviour that is positively related to learning outcomes, unlike their disagreeable counterparts.

Openness to experience

Openness to experience, also regarded as intellect, has played a significant role in academics at all levels of education. It has been associated with crystallized intelligence. Other writers have associated it with typical rather than maximum performance Stajkovic et al. (2018) refer to this as open-mindedness, innovative and seeking cultural and educational experience. Among the BFPM variables, openness is perhaps the most complex and contentious. The rationale

for this argument is that openness incorporates both an innovative and an intellect dimension. It is the intellect-curiosity dimension that contributes to the association between openness and academic performance (Stajkovic et al., 2018). The element of intellect-curiosity that also accounts for the correlations between openness and intelligence invariably found in academic performance (Stajkovic et al., 2018). Learners who are high on the openness to experience spectrum, tend to explore, detect, and enjoy abstract and sensory information. Also, openness is the FFM factor that is profoundly related to the familiarization of learning goals (Stajkovic et al., 2018).

Familiarization with learning goals is itself strongly related to academic performance (Richardson et al., 2012, as cited in Corno & Anderman, 2015, p. 174). Further, learning goals mediate the correlation between openness and academic performance (Steinmayr, et al., 2011, as cited in Corno & Anderman, 2015, p. 174). These motivational dimensions of openness seem to influence not only academic outcomes in the interim, but also considers overall educational accomplishment, in that, learners high on the openness spectrum are predisposed to attain a high level of education during the learner's lifetime (Costa et al., 1986, as cited in Kelland, 2020).

Neuroticism

MacCann et al. (2020) posit that emotional stability is characterized by a calm and relaxed mode of thinking, feeling and behaving which is also a strong predictor to subjective well-being. Thus, neuroticism refers to learners who are anxious, self-conscious, insecure, depressed, and temperamental. Thus, learners who are emotionally stable have lower degree of adverse impact, increase their wellbeing, and are unlikely to succumb to psychological illnesses (MacCann et al., 2020). Learners who display high neuroticism are organized, focused, learn from their mistakes, use self-regulatory skills as well as integrating new knowledge with prior information. They are likely to perform well at school (MacCann et al., 2020). Opposite to this, learners who have low

neuroticism display a lack of interest in school, suffer from debilitating anxiety and are withdrawn from learning activities. These learners have a fear of failure and incompetence relative to their peers (Payne et al., 2007).

Socio-economic status

The socio-economic status of learners impacts their commitment, motivation, and academic aspirations. Rodriguez-Hernandez et al. (2020) posit that, socio-economic status (SES) is among the most widely studied literature and emerges as one of the most significant predictors to academic learning particularly as it relates to family income and parent education.

Rodriguez-Hernandez et al. (2020) posit that, an estimated 20% of low- income students did not pursue higher education even though they were academically inclined due to the fact that they could not afford the tuition fees. Even when students were academically prepared to attend college, the inaccessibility of funds deterred students from choosing to further their education.” Few students are aware of the availability of financial assistance and bursaries before entering institutions of higher learning. It is noted that lecturers have referred students to the school’s counsellor to guide them in applying for financial assistance after observing that they were incapable of meeting their academic demands.

However, learners who are from higher socio-economic status are financially stable and are able to obtain the requisite resources for school. Conversely, students who are financially deprived are unable to obtain the resources and therefore find other means of accomplishing their tasks.

Despite the financial inability of some parents to cope, they are yet obligated to provide for their children. This makes it arduous for them to prepare their children for school. Such learners are often unable to complete tasks because of the absence of textbooks, tools, and equipment for

school. Some of them are forced to take part-time jobs to finance their education, adding a dimension of stress that renders it difficult for them to concentrate at school. These learners appear to be uninterested in school and eventually drop out due to poor academic performance. Lecturers may perceive these students as having poor work ethic, not knowing the inherent circumstances that affected them. Rodriguez-Hernandez et al. (2020) postulate that, while some learners are highly motivated, they are unable to afford the necessary resources for academic success. Consequently, not possessing these resources may not afford these students the opportunity to improve their grades as well. Thus, the significance of financial security to ensure the provision of one's need to engender academic success cannot be overlooked.

Parental education is also considered essential to a learner's academic achievement in post-secondary level education. Generally, learners whose parents are highly educated are motivated and committed to their educational endeavours. These learners have high educational aspirations and a high probability of success. Their counterparts, on the other hand, whose parents did not have post-secondary education have lower educational aspirations and lower likelihood of success in school. Moreover, Rodriguez-Hernandez et al. (2020) posit, learners from a lower economic status had lower average academic performance in their first year when compared to those from a higher income bracket. Consequently, these learners tend to have lower academic aspirations.

Attitude

Socio-psychological factors are internal factors that can influence a learner's perception of self. Bandura (1986, as cited in McLeod, 2016) postulates that one's expectation for success is determined by his or her personal judgement about their capability to perform the task within a given period. Magulod Jr (2019) posits that, one's attitude is their approach to his or her response to a given situation. A learner's attitude towards education influences his or her level of

performance. Magulod Jr (2019) posits that, generally one's attitude and beliefs will determine their level of motivation. For instance, having a negative self-concept and a defeatist attitude towards a task can lead to poor academic performance. From the interviews conducted with lecturers, this negative behaviour is prevalent in subject areas such as accounting and statistics, where students who do not understand the concepts taught do not seek assistance from teachers because they feel that these courses are not important to them. Moreover, they will participate in unethical behaviour as a means of enduring the difficulties of the course.

Bandura (1986, as cited in McLeod, 2016) confirms that self-esteem and achievement can shape academic performance. Students with high self-esteem are likely to be fast learners, have good work ethic, and are presumably successful in school. Conversely, learners with low self-esteem are likely to have poor work ethic and be low achievers. According to Bandura (1986, as cited in McLeod, 2016), consequently these learners only focus on tasks they are suited for rather than attempting tasks or situations that would require more effort. These learners are preoccupied with feelings of incompetence and develop negative attitudes towards work, which can result in poor academic performance. The Internship Assessment forms received from the internship partners revealed that many learners who were out on job training had similar dispositions and developed low self-confidence because of their inability to manage what they perceived as large volumes of work. These students were unenthusiastic and displayed a lack of initiative.

Locke and Lothan (2019) suggest that learners fall into three categories namely failure-avoiding mastery-oriented and failure-accepting. Further, that learners who are mastery-oriented are generally capable and successful. They are proficient in competitive situations, learn fast, assume responsibility willingly, are more persistent in the face of failure, have more self-confidence and energy and are more eager to learn. These values are directly related to the

characteristics highlighted by Bandura (1997, as cited in McLeod, 2016) of individuals with good work ethic. These include having a positive attitude towards work, achievement, job performance and self-discipline. These factors are important in attaining good academic performance.

Failure-avoiding students have experienced both successes and failure but have no definite appreciation of their own ability and self-worth. In order to safeguard themselves from failure, they may exert little effort and procrastinate on tasks, resulting in poor work ethic. Bandura (1986, as cited in McLeod, 2016) indicates that lack of capacity and determination to persevere on a task to its end are indicators of a negative attitude towards work. The persistence of this type of behaviour renders students as failure-accepting. They develop a self-defeating attitude which leads to failure and depreciation of their self-worth. They ultimately become depressed, apathetic, and helpless and may engage in unethical behaviour. However, learners who are ambitious are likely to possess good work ethic. They normally have high expectations of their learning institution but if these are not met, they may become demotivated.

Motivation

Motivation can be intrinsic or extrinsic. Hlatywayo (2019) posits that learners who are intrinsically motivated make their own decisions, perform tasks that make them feel successful and get pleasure in accomplishing their endeavours. This notion has been supported by Deci and Ryan's (2018) Self-Determination Theory which argues that learners who are innately motivated have three basic psychological needs namely: they seek out challenges and engage with their learning environment, they are competent in their abilities, and can relate to others. Learners who are intrinsically motivated have a better capacity for learning than those who are extrinsically motivated. These learners are highly involved in the learning process and activity engaged in

classroom activities. To encourage learners who are intrinsically motivated requires learners who are mature intellectually, socially, and emotionally.

Due to the fact that these learners have the natural desire to achieve their own goals, it becomes easier for teachers to take advantage of their natural curiosity by presenting them with learning materials that would be meaningful and suitable for them. Thus, learners who are driven by their own learning desires are fully capable of identifying learning goals that they are able to achieve and discovering ways of achieving them. These learners are also able to deal with life's challenges in order to gain a better understanding of the world around them, increase their knowledge, develop positive attitudes, and improve their skills. However, learners who are extrinsically motivated complete assigned tasks because of the reward associated with it. These learners who are externally stimulated need to be convinced that what they are doing is correct. Teachers use extrinsic motivation as a means of motivating learners to actively participate in the lesson taught and to arouse their desire for participation.

However, Deci and Richard (2018) posit that if these needs are not met, learners will more likely engage in learning activities because of external pressure or rewards. For example, some students who are extrinsically motivated rely on rewards in order to complete tasks. Some internship participating partners provide learners with a stipend which is motivational to some learners. Some learners from the SALCC are extrinsically motivated because of this stipend, thereby resulting in their requests for placement at these establishments. Other establishments do not provide this incentive, which may account for the poor performance and work ethic exhibited by some students. Without a reward, some students procrastinate and may not complete tasks. Bandura (2018) confirms that this type of negative attitude is an indication of poor work ethic. However, students who are extrinsically motivated are focused on achieving high grades, getting

their colleagues' approval, and receiving rewards due to the fact that their behaviour is controlled by externalities (Ibrahim et al., 2017). Moreover, they are motivated by the level of education attained, as well as their employment gained, and the level of prestige derived by their positions.

Additionally, Moral-García et al. (2020) posit that over the years families have changed, since most parents do not instill respect, good morals, and good work ethic in school as it was in the past. Thus, the attitude of parents towards their jobs indicates whether they display good or poor work ethic. Some parents with poor work ethic have problems with punctuality, respect for authority and attitude towards work which their children may emulate at school. Bandura (2018), in his social learning theory, confirms that it is essential that learners are more observant and model the good behaviours of others. Learners whose families believe in diligence, education and perseverance usually excel in school. Although they may come from poor families, they consider education as a way of improving their lives. This is an excellent way for them to prepare for the world of work. Thus, having a positive attitude towards learning is essential to academic performance and it is critical to nurture a learner's attitude towards learning. They should be provided with the requisite guidance for optimum academic performance.

Thus, the teacher's role in motivating learners to participate in the learning process cannot be overemphasized. It is imperative that teachers find creative ways to arouse the learners' motivation and willingness to learn. It must be notable that extrinsic motivation can evolve into intrinsic motivation when students come to the realization that learning is important, and they will be more likely to engage in the learning process without being told to do so.

Achievement Goals

During the application process, students who apply to the SALCC are required to select three potential programs of study of which they will indicate their order of priority. It must be

notable, however, that the courses offered at the learning institution can also influence the students' selection. While the goal of some learners is to receive their first option programs, some learners do not. Selection of courses would also have an influence on the learners' career path. However, in many cases learners select programs which their fellow colleagues are also embarking on without fully understanding what is required for study and successful completion of the course. This decision can negatively impact the students' ability to succeed because they might experience some level of stress because of their incapacity to adapt to their course of study, the new learning environment as well as the teaching methods implemented at the tertiary level. Unfortunately, in these circumstances some learners may face difficulties in certain courses, for example statistics, accounting, and science, which result in them failing their assessments and activities for the course.

It is imperative therefore that learners select programs of study based on their interest and not that of their colleagues or family members. While some students are motivated in their chosen area of study, they underestimate what is required for successful completion. Most prospective students select an institution of higher education based on their offerings, level of expertise, accreditation as well as their ability to secure a job after graduation. Thus, learners must consider all variables before selecting the program of study and by extension the institution of higher learning.

It has been observed that during a learner's academic life, the goal is to successfully conclude their course of study. The types of goals set can influence a learner's level, source of motivation and academic performance. Therefore, the importance of setting goals and targets which will provide the learner with a sense of direction, as well as the effort required, towards an expected outcome cannot be overstated.

According to Locke and Latham (2019), there are two conditions which must be achieved before goals can lead to academic success. First, learners must be familiar with the objectives of the goal. Secondly, the goal must be accepted by the learner. A learner's level of motivation to achieve these goals can either be intrinsic or extrinsic. For example, some learners would work harder and accomplish more if they were rewarded appropriately. Conversely, Lock and Latham (2019) posit, that learners outperform themselves when they are just required to perform well without set goals. These goals can be classified as performance goals and mastery goals.

Performance goals can be extrinsically motivated, depending on the expected outcome. For example, if the expected outcome is based on an anticipated positive academic performance, or whether pursuing an anticipated failure or negative assessment. While the former may improve academic performance and academic competence, the latter reduces learner motivation and sense of accomplishment (Locke and Latham, 2019).

Mastery goals, on the other hand, are focused on the learner's ability to comprehend and master content, which has been associated with adaptive outcomes such as good metacognitive skills, self-efficacy, and good academic performance. These learners seek challenges and persist when faced with adversity. According to Locke and Latham (2019), when these learners are faced with adversities, they are problem-solvers and are able to find sustainable solutions for their academic performance.

However, learners who are faced with performance goals pursue tasks which allow them to exhibit their academic competence. These learners avoid challenging tasks and pursue only those which guarantee success. As such, while some writers such as Senko (2019), is of the opinion that there is a positive connection between performance goals and academic performances in simple tasks and mastery goals in challenging tasks, other writers Mouratidis et al. (2018) posit

that there is no relationship particularly as it relates to challenge seeking. On the other hand, mastery goals, according to Senko (2019), strongly suggest that there is a connection between mastery goals and academic performance.

Learners can pursue both mastery and performance goals independently, allowing them to achieve multiple goals concurrently, for example, achieving mastery in a subject area while striving to achieve success in an examination. Other learners may focus on one or both goals where one goal will be the primary goal and the other the secondary.

The study explores the factors which contribute to academic performance, as such it can be concluded that the issue is complex because there are several variables which are impactful to academic performance. The literature above has shown that there is a connection between learner characteristics, motivation, and academic performance. Student characteristics, namely: attitude, socio-economic status, gender, personality, and goals can have a positive or adverse influence on a learner's academic performance.

A learner's attitude can determine his or her educational outcome. There are several factors which can influence a learner's attitude, for example, a learner may model the attitudes that are expressed by his or her parents and this can have a positive or adverse impact on him or her. Writers have shown the impact or argued that attitude does not impact academic performance. It is essential, nevertheless, to understand the rationale for the learner's attitudes in order to implement the necessary strategies for improvement.

A learner's socio-economic status is a primary predictor of his or her academic performance and parental education is a fundamental variable towards student success. For example, educated parents generally provide both academic and financial support to their children. This is not necessarily so for parents who just see themselves as providing financial support and

leave the academic support to teachers, peers, and the school. There are some cases where students from low economic backgrounds are unable to have the requisite support to meet their academic needs. As such, some students may have to get part-time employment in order to fill the void. Some writers, such as Khan et al. (2015), find that learners, whose parents have no formal education, are faced with challenges at school. On the other hand, some parents who are not formally educated understand the importance of education as guaranteeing that their children do not experience the adversities which they experienced and do their best to support their children where necessary.

There have been inconsistencies in the relationship between gender and academic performance. For example, Reilly et al. (2019) posit that there is no connection between gender and academic performance on a singular course but a significant relationship in overall academic performance. However, other writers such as Ranjeeth et al. (2020), posit that there is a fundamental relationship between gender and academic performance where males perform better than females in various academic settings, while females outperform males in other situations. Further, one notes that writers such as Ranjeeth et al. (2020) posit that females exhibit the requisite dispositions that are required for good academic performance more than their male counterparts.

Writers posit that personality has the most significant impact on academic performance, albeit in different ways. The Big Five Personality Framework is used to examine the significant impact of diverse personality traits on academic performance. Of all the personality traits, conscientiousness, agreeableness, and openness to experiences have a strong influence on academic performance. However, there seems to be a complicated relationship between extraversion and neuroticism with academic performance. The types of goals learners strive for

during their academic life can influence their source and level of enthusiasm which will consequently impact their academic performance.

Self-Regulation Learning Strategies and Academic Performance

The transition to post-secondary level of education can be a daunting experience for some learners. At this level of education, learners are faced with many challenges including the need to develop metacognitive skills including self-regulatory learning strategies for the new student-centered learning environment. Moreover, besides their limited metacognitive skills, they face challenges regulating their emotions and motivation, study habits as well as choosing the most appropriate learning environment. These learners externalize their locus of control, are unenthusiastic about learning and feel entitled to academic incentives for minimum effort. Additionally, they exercise poor self-discipline and time management skills and are easily distracted. Thus, regrettably, some learning institutions have lowered their standards to be able to accommodate those learners who are unprepared to study at that level. As such, one of the most fundamental goals in education is to assist learners to develop self-regulation skills in order to improve their academic performance. This is critical as studies have revealed that self-regulation is related to academic improvement and performance.

There are several definitions of self-regulation. For example, Palos et al. (2019), posit that it is the independent and self-initiated learners who have the capacity to use varied learning approaches to achieve their learning goals. Zimmerman (2013) offers that it is the ability of learners to self-direct themselves both mentally and emotionally towards the achievement of the goal. Moreover, students who are self-regulated actively participate in the learning process cognitively, motivationally, and emotionally. Palos et al. (2019) posit that these strategies are used by learners to self-regulate their learning. More importantly, rather than react unfavourably to

instructions provided by teachers, learners are able to develop self-regulating strategies. Hence, the learning strategies used will determine the desired outcome.

Over time, the roles of learner and teacher in the classroom have evolved. Traditionally, learners were viewed as passive and dependent, while the teacher's responsibility was the learning and teaching process. Eventually, though, with the development of cognitive theories, learners are no longer considered as unenthusiastic but rather actively engaged with new information in ongoing improvement to their existing knowledge. In this way, learners can set their own goals, monitor, organize and manage their cognition, motivation, and actions (Zimmerman, 2013).

There are diverse self-regulation models that assume that there is a formidable connection between self-regulatory strategies and outcomes including academic achievement and completion of tasks (Zimmerman, 2013). However, the researcher is incognizant of any study undertaken at the Sir Arthur Lewis Community College showing the association between the use of self-regulatory strategies and academic performance.

There are several frameworks explaining the process of self-regulation and academic performance. These models include those purported by Palos et al. (2019). Chen and Bonner (2020) offer a more comprehensive Social-Cognitive Model of self-regulation learning strategies. These, as stated by Chen and Bonner (2020), include metacognitive self-regulation, regulation of physical and social environment, time management and effort regulation as explained hereunder:

1. Metacognition is the foundation to self-regulation. It includes organizing, monitoring, and related activities. This is supported by Zimmeman (2013, as cited in Chen and Bonner, 2020), who posits, that there includes a planning phase which includes goal setting, self-monitoring which refers to comprehension and flexibility which includes the selection and implementation of appropriate learning approaches to complete the task at hand. Though

the terms metacognition and self-regulations are related, they are dissimilar in some respects. For example, metacognition is critical in the selection of learning and critical thinking approaches. Planning, however, includes setting educational goals and outcomes (Chen & Bonner, 2020).

2. The regulation of learner's physical and social environment including the learner's capacity to control his or her learning environment and being able to determine when to seek academic support. According to Chen and Bonner (2020), one's study environment also allows the learner to identify the most conducive study area. Moreover, Chen and Bonner (2020) also regard seeking support and peer learning as facets involved in management of one's learning environment. Additionally, seeking support is considered a proactive learning strategy, whereas peer learning or collaborative learning occurs in groups, where learners engage and reflect on their knowledge.
3. Time management, according to Smith (2001, as cited in Chen and Bonner, 2020), are dimensions of physical resource management. It includes planning, organizing, and controlling one's study time.
4. Effort regulation refers to the learner's ability to stay on task despite potential distractions. According to Chen and Bonner (2020) regulating one's effort can help to instill gradually appropriate learning skills as well as assist students in coping with distractions both in and out of school. Thus, despite the daily challenges faced by learners, if they possess competencies in effort regulation, they may be able to excel at school. It must be noted that effort regulation is concerned with diligence and confidence in one's academic abilities.

Chen and Bonner (2020), in their research, support Pintrich's (2003, as cited in Irvine et al. 2019) Social-Cognitive Model of self-regulatory learning strategies. These strategies include

cognitive learning approaches of which elaboration and organization are of paramount importance. Following that, are metacognitive and self-regulatory strategies which include organizing activities aimed at enhancing academic performance, goal setting, monitoring thinking and academic behaviour. Finally, there are resource management strategies, which include learners' ability to manage their time, effort, study area and people, including peers and teachers.

On the other hand, Schraw (1998, as cited in Tse et al., 2022), suggests a three-phase model of self-regulation which he states occurs before, during and after the task has been completed. These stages include planning which occurs prior to the performance of the learning task, monitoring which takes place concurrently with performance of the task and evaluation which occurs subsequent to completion. At each stage, according to Schraw (1998, as cited in Tse et al., 2022), learners will develop a checklist of self-regulatory questions to manage their learning progress and modify their learning strategy if required.

Zimmerman (2013, as cited in Chen and Bonner, 2020) proposes a similar but more abstract three-phase Metacognitive Model to self-regulated learning. The first phase involves the pre-learning phase where students set their own goals and plan how they will approach the challenge or resolve the problem. In doing so, learners consider the expectations of the task and what the outcomes would be. Additionally, the interest and value placed on the task will also influence their level of participation. At this stage, learners who are high on the openness to experience spectrum are inclined to be more innovative and accepting of contemporary ideas. These learners may be better able to harness new information that is critical to their academic success.

In the performance phase, the learner implements the most appropriate strategy to complete the task. In doing so, they can critically assess the task to determine whether they will persist,

adjust, or abandon the task entirely if they feel that they are unable to complete it successfully. Thus, procrastinating learners are likely to achieve less as they are similar to those low on the spectrum of conscientiousness who lack perseverance. Finally, the self-regulation phase requires learners to ponder on their performance and the task to be completed. In doing so, learners will be able to assess the task to determine actual performance versus what could have been done to improve their performance.

This three-phase Metacognitive Model put forward by Zimmerman (2013, as cited in Chen and Bonner, 2020) emphasizes that with practice and adequate support, students can be efficient self-regulated learners. Based on their prior learning experiences and the strategies used, learners can draw from a pool of strategies that can help build the learners' confidence in their ability to take on new challenges, regarded as performance self-efficacy. However, according to Zimmerman (2013 as cited in Chen and Bonner, 2020), when the learner's task is unfamiliar their performance must be projected based on their level of competence. This is regarded as academic self-efficacy. If learners lack self-confidence, do not engage in reflective practices, then they are less likely to make use of the most suitable learning approaches in the future (Schunk et al., 2017). Thus, teachers can model the appropriate strategies, creating a supportive yet challenging learning environment. With the support of teachers, learners can develop self-regulation learning strategies such as attitude toward work. This is supported by Schunk et al. (2017) who affirm that self-regulation learning strategies can be cultivated in school. Thus, Kapur (2018) posits that the classroom can provide learners with opportunities for self-regulation. Palos et al. (2019) further state that self-regulatory learning strategies should be embedded in self-regulation instruction.

Schunk's (2017) Self-Efficacy Model of Self-Regulation utilizes perceived self-efficacy as a self-regulative strategy, which is discussed in the context of the processes which includes self-

observation, self-judgment, and self-reaction. Zimmerman (2013 as cited in Chen and Bonner, 2020) asserts that self-efficacy plays a role during the pre-learning, performance, and self-evaluation phases of his Metacognitive Model of self-regulated learning. It is notable that self-efficacy and self-regulatory learning approaches seem to impact each other. Studies show a chain reaction in which self-efficacy influences goal orientation, which in turn impacts learning strategies, leading to academic performance.

According to Schunk et al. (2017), self-regulatory learning strategies only influence self-efficacy after the performance results are attained and not before. Another chain effect is noted here, also, where self-regulatory learning strategies influence academic performance, which impacts one's level of self-efficacy, leading to goal orientation, then further to self-regulatory learning strategies – and the cycle is repeated.

Among the aforementioned frameworks, Pintrich's (2003 as cited in Irvine et al., 2019) model is the most thorough due to its meta-cognitive and cognitive learning dimensions as well as other contextualized social attributes of the learning environment. Based on Nabavi's (2012 as cited in Yadav, 2020) socio-cognitive perspective, categorizing and evaluating the varied processes influence self-regulatory learning. In this framework, regulation involves planning, monitoring, control, and evaluation. Grounded in each phase are cognitive, affective, behavioural, and contextual self-regulatory activities. This notion is supported by Smith (2001, as cited in Palos et al., 2019) who reiterates Zimmerman's (2013, as cited in Chen and Bonner, 2020) observation that self-regulatory learning is essential for lifelong learning and that it is an approach in which the learner controls his or her thoughts, affects and behaviours as they acquire competence and skills. Self-regulatory learning strategies assume learners to be engaged instead of being unenthusiastic recipients of information, thus taking control over their goal achievements (Schunk

et al., 2017). Further, according to Smith (2001, as cited in Palos et al., 2019), self-regulated learners have specific goals; they establish what they need to have mastery and control in their learning environment by reducing distractions; they ensure that they implement their learning plans, seeking support when it is necessary, monitoring and evaluating their improvement towards the learning goal; they then make the required amendments to their comprehension and regulatory learning approaches until they achieve their learning outcomes.

The significance of having a positive attitude during the learning process cannot be over-emphasized. Thus, the most important characteristic of self-regulation theory is the learner's behavior or attitude directed toward achieving a goal. The emotional dimension coincides with emotional self-regulation which is evident in two of Zimmerman's (2013, as cited in Chen and Bonner, 2020) three-phase Metacognitive Model, where the learner must first be motivated and interested in the task and its importance as well as his or her level of self-efficacy and desire for mastery. During the evaluation phase the learner assesses his or her performance and then reacts emotionally to his or her judgement of performance. The learner's satisfaction with his or her performance reinforces the learner's motivation to embark on future tasks. However, if the learner is disappointed, he or she can choose to modify his or her learning strategy or withdraw from the task. The latter option can have an adverse impact on the pre-learning phase of the next task. If a learner does not accurately assess his or her performance, it would be deemed as poor self-regulation which is associated with poor academic performance. But learners who accurately assess their performance similar to that of their assessor would be considered as highly motivated achievers.

Feedback also plays a fundamental role in self-regulation and can be derived from varied sources not limited to peers and teachers. Feedback involves information provided on the progress

toward achieving a goal. In doing so, learners can compare actual performance to proposed performance in order to determine the learner's degree of success. If progress is not made, the learner makes changes, tries different approaches to achieve the goal or even abandons it altogether. Employing the appropriate self-regulation strategy towards success is an indication that learners can perform well, therefore improving their academic self-efficacy.

A review of the above literature reveals that there is a close relationship between self-regulatory learning approaches and attitudes, goals including personality traits. Self-regulatory learning strategies are fundamental to academic performance, particularly at the post-secondary level of education, which requires critical thinking and problem solving. Although it does not require any specific degree of competence or intelligence, it necessitates learning about various strategies and their advantages, and subsequently the implementation of the appropriate strategy of reacting favourably to external forces. There are many significant benefits of using self-regulatory strategies, for instance, enhancing learners' achievement, the amount and degree of learners' conscientiousness, critical thinking, reflective practices, and conscientious competencies.

It must be noted that developing self-regulatory strategies is a continuous process and the strategies discussed are designed to help learners build and improve their skills and competencies throughout their academic life. Unfortunately, at the lower levels of education, learners do not learn how to learn. As such, these learners enter post-secondary learning institutions unprepared to be independent, critical thinkers and problem solvers. As a result, unfortunately, some learning institutions have lowered their standards to be able to accommodate those learners who are unprepared to study at that level at the expense of other motivated and prepared learners.

Self-regulation is difficult to define as there are many perspectives as mentioned above that are parallel to each other and are found in diverse literature reflecting the interests and concerns of

the writers. Nevertheless, one can argue that self-regulation is fundamental to psychological studies and human behavior. For instance, in the context of education, Jordan (2018) posit that the school classroom provides learners with opportunities for self-regulation. In their model of Adaptable Learning, they argue that these opportunities can be assessed in many ways and that diverse goals such as learning as well as ego protective goals can support diverse methods of coping and learning in the classroom. However, Zimmerman (2013, as cited in Chen and Bonner, 2020) puts forward a three structural phase model of self-regulation namely pre-learning, performance, and self-reflective phase which he attributes to directed thought, feelings, and behaviours towards achieving the learning outcome. While Pintrich (2003 as cited in Irvine et al., 2019) defines self-regulated learning as the approaches that students engage in to mediate their comprehension and to manage their learning, Chen and Bonner's (2020) model of self-regulation includes metacognitive self-regulation, regulation of physical and social environment, time management and effort regulation.

Based on those theories mentioned above, one can deduce that there are three fundamental variables to self-regulation. First, the most important dimension is the use of metacognitive approaches which learners restructure their cognition. Secondly, learners' ability to manage and control efforts made to complete their assigned tasks. Finally, the use of cognitive strategies which learners use to recognize and fully comprehend curricular concepts. Pintrich (2003 as cited in Irvine et al., 2019) asserts that these dimensions form the basis of self-regulation. Zimmerman (2013, as cited in Chen and Bonner, 2020) further contends that learners become independent, capable of directing their own knowledge and competencies. Additionally, those learners are motivated to use the most appropriate strategies to enable them to regulate their time, effort as well

as to create the most conducive learning environment as well as seeking assistance when necessary to achieve the most favourable outcome.

Additionally, Bhatt and Bahadur (2020) posit that a learner who is self-regulated also has high-self-efficacy, exhibits internal locus of control, and utilizes deep learning approaches to master the learning material, rather than perform to the minimum level. All these characteristics are fundamental to self-regulatory learning. While deep learning approaches are associated with intrinsic goal orientations and satisfactory approaches to learning, surface leaning approaches are related to extrinsic motivation and poor learning approaches. However, there are situations where learners can take a strategic approach and use both ‘deep’ and ‘surface’ learning approaches contingent upon the significance and characteristics of the task. Thus, learning approaches consist of motives and learning strategies, both of which were discussed earlier. In the end, the main goal of an institution of higher learning is to develop life-long learners who are purposeful, independent, and self-directed. In doing so, these learners should be able to cope with the dynamic working environment and be able to use that knowledge and skills in the workplace.

Institutional Factors and Academic Performance

This subheading examines school-based factors that can impact students’ academic performance. These include, but are not limited to, learning resources, teacher-student interaction, instructional strategies, teacher expectations, relevance of the curriculum, performance assessment systems, guidance, and support services as well as infrastructure.

The Importance of Learning Resources and Academic Performance

Learning resources are described as the approaches and materials that are utilized in teaching (Etim, 2021). Moreover, the relevance of quality learning resources in schools of developing countries as well as the relevance of particular resources cannot be understated.

According to Etim (2021), learning resources include, but are not limited to, instructional materials such as textbooks and other reading materials as well as non-printed materials. These inputs can have a positive or a negative influence on academic performance.

There is a supposition among instructional resources theorists that there is a relationship between teaching and learning resources and academic outcomes. These outcomes include the learner's increased capacity for learning, quality of learning approaches, execution of classroom activities and enthusiasm for learning. Additionally, these theories posit that learning resources can imbue learners with metacognitive skills with the capacity to solve problems by assessing the situation and creating a plan of action to solve them (Gagne et al., 2018). Further, Gagne et al. (2018) purport that instructional resources can increase the students' learning abilities using self-regulatory learning strategies and supported learning. According to Jaiswal (2019), instructional materials mainly comprise eliciting performance and providing feedback on performance correctness, in addition to providing learning guidance for guiding discovery learning to improve their performance.

While Gagne et al.'s (2018) theory of Conditions of Learning (COL) is competency based, it does not indicate the students' level of critical thinking skills in varied aspects, or how they are able to solve problems on their own. Jaiswal (2019) is of the opinion that the use of instructional resources is to prove learners' innovativeness and inspire them to solve their own problems. This belief is shared by theorist Lev Vygotsky (1978, as cited in Ameri, 2020) in his Sociocultural Theory argues that learning resources can develop learners' high order thinking skills which are fundamental to problem solving. This concept is relevant at the post-secondary level of education.

Ampofo (2020) discovers that there is a profound association between learning resources and academic performance. The term resources, according to Etim (2021), does not only refer to

teaching materials and approaches to learning but rather, additionally, instructional time, teacher competence and skills acquired over time. Affluent schools which have access to more instructional material perform better than public schools with less teaching and learning resources (Kutu et al., 2020). Kutu et al. (2020) are also of the opinion that learner's academic performance can be influenced by the quantity and quality of instructional and learning resources. Inadequacy of instructional material can cause teachers to handle subjects in an ambiguous manner and with little enthusiasm. What this argument underscores, is that basic instructional resources at educational institutions are more fundamental to the satisfactory performance at examinations than if they were absent. Moreover, the unavailability of libraries and adequate physical facilities can restrict an education system from adapting to the new demands in education. According to Okongo et al. (2015), there needs to be an enhancement in the quality of learning resources, physical facilities, and human resources. This notion is supported by Etim (2021), who opines that for schools to realize an increase in student academic performance, the availability of appropriate and adequate textbooks and other instructional and learning resources cannot be overlooked.

Irrespective of whether there is an improvement or deficit in the number of students enrolled at the SALCC, the government subvention over the last ten years had been fixed at 15.7 million per annum (St. Lucia Education Digest, 2018). Research has indicated that there is no rational basis used for allocation of subvention as this is mainly handled arbitrarily within the national budget process. This amount of funding is grossly inadequate to meet the routine demands of the SALCC, the purchase of necessary learning resources and the maintenance of the school plant. As a result of mold infestation and deterioration, some of the physical structures have been decommissioned. The unavailability of adequate infrastructure has had an adverse impact on the spaces available for students to engage in meaningful academic work. This impacts students for

whom studying at home may not be a viable option thus frustrating them further and leading to their poor academic performance.

Another challenge experienced by teachers and students at the SALCC is the limited accessibility of modern instructional facilities, for example, computer laboratories and Wi-Fi services. Although the SALCC has access to ICT, which can remedy the shortage of instructional material, the infrastructure to support the demand for Wi-Fi services is limited. Thus, some students and teachers have to delay their various tasks until they arrive at home. However, some learners may not be fortunate to access these services at home as they are unable to afford the data packages offered by the various telecommunications companies. This places these learners at a disadvantage, thereby affecting their ability to complete their course work. One must note that the use of ICT in schools is critical in teaching and learning. This became essential in 2020 with the advent of Covid-19 where many educational institutions, including the SALCC, were forced to engage students using online learning platforms.

Another challenge faced by teachers at the SALCC is the process used to obtain learning resources such as textbooks and equipment through the college due to the bureaucracy and red tape involved in getting it accomplished. Generally, by the time permission is granted for these resources, the semester would have advanced or even culminated, leading to the frustration of teachers and students. As a result, lecturers are faced with the additional burden of having to use their personal funds to purchase textbooks and other learning resources.

Due to the decommissioning of the Hunter J Francois Library at the SALCC because of the mold infestation, many of the library support services have been significantly reduced. Currently, the library can only accommodate 1.2% (twenty-two) students out of a population of one thousand eight hundred (1,800) students at a time because of the limited space. This has further

been exacerbated due to the Covid-19 pandemic which has enforced social distancing policies, reducing the capacity to eleven (11) students. Compounding this problem is that many books have become unusable. What is left is woefully insufficient to meet the demands of students. Lecturers and students are now left to rely on the internet to access resources which should have been provided by the library. This situation has caused the library to provide open access textbook repositories such as Ebscohost and Alexandria. While some learning resources, particularly textbooks, are free, the risks are two-fold. Firstly, the absence of stable and reliable internet access in real time forces students and lecturers to complete their tasks at home. But, as established earlier, due to the socio-economic status of some students they will be at a disadvantage in this regard. Another hurdle is that while an abundance of resources is available, the challenge is the risk of accessing and using material that has not been vetted for reliability and quality.

Kapur (2019) posits that the use of ICT in schools cannot be understated as its relevance in the acquisition and dissemination of information provides opportunities for educational institutions in developing countries to improve their education system. Kapur (2019) continues to state that the wide use of ICT can impact the quality and efficiency of basic education world-wide. Another concern is that the ability of lecturers and students to access information virtually on any subject area has the potential to modify instructional material and pedagogical strategies.

Some lecturers may choose to make some learning resources available for printing at the SALCC's Reprographic Center to assist students who cannot afford, or who do not have access to the teaching material. The reality is that while some students can obtain the printed material, others are unable to do so due to their lack of financial means. Compounding the problem also is that sometimes the photocopying machines are out of service thereby hindering students' access to learning resources.

Further, according to Ali et al. (2013, as cited in Ul Hadi and Mohammad, 2019), there is also the assumption that the type and standard of the learning institutions students come from would influence their academic performance. In summary, the school's environment sets the thresholds of the learners' learning outcomes. Further, Dhanapala (2021) emphasizes that the school's environment has much influence on the safety, comfort, and academic performance of learners. Before students gain entry into an educational institution, they have certain expectations based on the nature of the courses offered and supporting learning resources. But upon entry, they may realize that their resources are unsatisfactory or non-existent. This situation can demotivate learners causing poor academic performance. Conversely, if the learning resources meet or exceed learners' expectations, academic performance can be favorable. This theory is supported by Dhanapala (2021) who posits that learner outcomes is also determined by the type facilities that a school offer can also determine the quality of the learning institution, which in turn affects student performance and achievement.

Some researchers have concluded that student performance can be influenced whether a school is privately or publicly operated. For instance, there is an assumption that students who are from an elite school perform exceptionally well because of the abundance of learning resources and updated facilities at these institutions. Due to better funding, smaller size, more motivated faculty, access to learning resources and equipment, learners from private educational institutions perform better than their counterparts from public schools.

It was pleasing to note that from academic year 2012 to 2015 the Government of Saint Lucia issued laptops to students in their third year of study at secondary school to provide support for their learning. Unfortunately, the provision of laptops was discontinued in 2016. Since then, some students who have gained entry to post-secondary level institutions such as Sir Arthur Lewis

Community College do not have access to a computer either at school or at home to complete their tasks. Further, with the absence of ICT equipment in the computer labs at SALCC, some students are at a disadvantage because they do not have access to a laptop computer which they can use in class. Akpan (2020) confirms that the availability of properly furnished workshops and laboratories in school are essential resources for teaching and learning.

Using learning resources are not without implications. For knowledge to be absorbed, it is important to stimulate various senses of the learner other than hearing. When selecting learning resources, it is necessary that the objectives of the learning courses are met, validated and impact assessed. The learning resources must be used appropriately, tailored to the content taught and the varied learning styles of students in the subject area. For instance, the use of YouTube videos used to explain 'the new product development process' in marketing, allows learners to gain a visual experience of the process or technique. In doing so, the learner's understanding of the concept is reinforced using real-world examples with which they can identify. This is supported by Hoban and Zizzman (2006) who assert that the quality of the audio-visual resources would determine their effectiveness.

Writers such as Etim (2021) asserts that if learning resources are properly implemented it can result in interesting and meaningful work, longer retention of information, acquisition of diverse skills and competencies as well as more actively engaged learners. Thus, care must be taken when selecting appropriate learning resources for the classroom. As such, learning resources should be activity-based, should encourage collaboration and individual growth, develop learners' critical thinking and decision-making skills. Further, they should be chosen based on learner aptitude, ability, learning style, metacognitive skills, and interests. From these viewpoints, one

can deduce that learning resources are critical for effective teaching and learning. Additionally, they can support student learning and potentially increase learner performance and success.

While some writers place the sole responsibility of the acquisition and provision of learning resources on the educational institution, it must be noted that parents have a responsibility for providing the essential learning resources for their children. Albeit the foregoing, because financial resources are limited, parents from families of low economic status tend to give of their financial resources, priority to domestic needs rather than their children's education. The parents' inability to provide the essential learning resources for school can lead to poor attendance, decreased retention, unpreparedness for school and decreased student performance. Conversely, parents from high economic backgrounds are able to meet the learning resource needs of their children. This good fortune, however, does not always lead to desirable outcomes. For, although these students can acquire the essential resources, some of them do not utilize the resources for academic purposes. For instance, students who own laptops and have access to internet services use these resources for entertainment purposes rather than engaging in meaningful learning experiences.

A review of the above literature reveals that learning resources are the materials used in the learning process. They include, but are not limited to audio, visual equipment, textbooks and other printed material, facilities such as library, classroom, ICT, and internet services. The use of learning resources can assist lecturers and learners in the description of new concepts, enabling them to have a better appreciation of the concepts taught. It is notable that learning resources cannot replace a teacher but, rather, assist them in achieving their teaching and learning outcomes. Moreover, Kapur (2019) posits that learning resources are fundamental to learning. It influences how curriculum is implemented. Also, a teacher who is equipped with the appropriate teaching

facilities is more assertive, productive, and effective. Additionally, it facilitates learners' practical experiences which helps to develop their metacognitive skills and competencies in various ways.

There are several advantages to using learning resources. They include promotion of effective teaching and learning, assistance in achieving learning objectives, clarifying, interpreting, and appreciating concepts taught, aiding with learner retention and readiness for new learning experiences, stimulating the senses, providing real-world experiences and opportunities for learners to work individually or collaboratively.

Various authors have noted that educational institutions with adequate learning resources perform better than those with inadequate learning resources. As such, poor academic performance can be ascribed to insufficient instructional and learning resources. The importance of adequate physical facilities cannot be minimized. Physical facilities include, but are not limited to classrooms, lecture theatres, libraries, workshops, equipment, and tutorial rooms can impact learning. The importance of physical facilities is endorsed by the World Bank (2008) which asserts that learners have positive learning experience when they are provided with the quality and quantity of resources. However, inappropriate physical resources, unattractive buildings, unavailability of a playground as well as crowded classrooms can contribute to poor academic performance.

The availability of teaching and learning material can improve the quantity and quality of educational experiences, thereby contributing positively to student academic performance. Obilor (2019) posits that with adequate quantity and quality of human resources, relevant approaches to the use of resources can be employed toward the achievement of the educational institution's goals and objectives. Therefore, educational institutions must endeavor to attract and maintain the best instructional and learning resources. The appropriate use of these inputs during the implementation

of the curriculum is fundamental in assisting the individuals charged with the responsibility for education towards achieving these goals as well as supporting them in the teaching and learning process in the classroom (Shiundu & Onulando, 1994, as cited in Muasya et al., 2019). Thus, learning resources are critical within the school system in achieving their objectives and realizing a sustainable student academic performance.

In closing, while students who are from elite educational institutions perform better and have access to better learning resources than public schools, there is a commitment by parents to provide these learners with the required learning resources. This is optional in a government-operated school because it is considered that the state will provide the majority of the learning resources. Nevertheless, parents and students are expected, wherever possible, to ensure that their children are equipped with the essential learning resources.

Education is the key to sustainable development, economic stability, and quality of life for a country. Educators have the responsibility to ensure that the instructional resources provided are appropriate for the development and growth of learners, particularly at the post-secondary level of education. They are to ensure that these resources are relevant to the accomplishment of appropriate learning outcomes. Learning resources, as discussed, are fundamental to the learning process because they can significantly contribute to sustainable academic performance.

Type of School

The period of adolescence is a very turbulent period in a learner's life primarily at secondary school and college. It is at this stage that many learners struggle between identity versus role confusion (Polirstok, 2017). On the one hand, learners try to establish their independence while trying to fit-in or conform with peers. Asserting their independence among their peers or being different can be problematic. While fitting-in provides a sense of collective identity, it can

also have an influence on academic performance. This is because some students who are naturally academically inclined may choose to be passive learners, not displaying their academic abilities for fear of getting recognized for their efforts.

Other learners view enrolling into a new learning environment as an opportunity to redefine themselves and the groups they want to belong to. Due to the fact the students enrolled into the SALCC come from various secondary schools including low, mid-range and high-level schools, learners use this as an opportunity to make new friends, join new clubs and engage in various learning and extra-curricular activities. These learners are mature and prepared for the academic challenges which form part of their learning experiences. However, these learners who enroll into the SALCC who have struggled to meet the entry requirements with the negative connotation that it is not cool to be smart will face challenges trying to cope with this new learning environment which may negatively impact their academic performance and opportunities for advancement over time.

The achievement gap between low- and high-level schools has continued to manifest over time from primary to secondary education. Unfortunately, this has significant implications for learners desirous of pursuing post-secondary education and vocational education. Many students who do not meet the acceptable benchmark for acceptance into the SALCC, for example, are forced to take remedial courses during their first year of college. This puts additional strain on learners since they will have an increased workload and also a longer time to complete their course of study. In some instances, poor proficiency in areas such as Mathematics, English and science can delay college academic pursuits. Unfortunately, some of these learners may never advance beyond this remedial stage, never having obtained their degree qualification, while incurring the costs associated with completing these courses.

While learners coming from low, midrange and high-level schools generally exhibit different cognitive abilities, there are learners who try to persist despite the low range secondary schools they come from. Conversely, there are learners who come from midrange and high-level schools who are unwilling to take on any academic challenges when compared to other learners from low-level schools who are open to new experiences and learning new and challenging academic content. These students, according to Dweck (2007), as cited in Polirstok (2019), have a growth mindset. However, those learners who are not willing to advance themselves academically are seen as having a fixed mindset (Dweck, 2007, as cited in Polirstok, 2019). Unfortunately, these learners who adopt a fixed mindset become trapped in low achievement purgatory and diminish any opportunity of pursuing post-secondary education.

The support provided within the education system is critical to changing the negative mindset and patterns of behaviour exhibited by learners which can impact their future aspirations. There are diverse behavioural and cognitive techniques which can be implemented in the classroom environment which can contribute to developing a positive mindset, increase resilience and persistence. The approaches include self-evaluation, peer tutoring and verbal self-instruction.

Peer Tutoring

Polirstok (2019) posit that peer tutoring is an effective tool used to improve the academic performance of learners which has sometimes been utilized to improve social behavioural performance for both tutees and tutors alike. For example, learners with a fixed mindset and low self-confidence can be selected and trained to be tutors. In doing so, they are able to regulate their own behaviours, reinforce the need for persistence to remain on task, be in good standing with their colleagues, and understand what is required for positive learning outcomes. Altogether, these

advantages can result in the learner's ability to increase their self-efficiency and change of mindset over time.

Self-Evaluation

Self-evaluation, which is also referred to as self-management is a metacognitive activity which can improve both social and academic performance (Ardoin & Martens, 2004, as cited in Polirstok, 2019). Learners who typically do not meet their academic demands would benefit from self-evaluation training because it teaches them how to identify the criteria utilized for evaluating a given situation, as well as benefit from the opinions of other participants in the learning environment who will serve as assessors for their performance (Polirstok, 2019). In doing so, learners are able to monitor their behaviour and help them to identify the negative behaviours which prevent them from achieving their task, as well as provide them with valuable feedback on their performance. This type of intervention is not generally used but, rather, is only beneficial once the situation is understood. It is useful, too, for learners who lack the ability to stay on task and who have a fixed mindset. By providing a structured method that can help them to complete assigned tasks, the learners can then discover the benefits of persistence and improved self-efficacy. Moreover, it allows them to think differently about themselves as a learner and this fosters a change in mindset.

Verbal Self-Instruction

Verbal self-instruction is an alternative approach used to help learners to improve their time on tasks, limit negative thoughts with reference to their academic performance. Polirstok (2019) posits that to improve on learner self-efficacy, necessitates that teachers use positive verbal cues to convince learners that they are competent and can be successful if they use the most appropriate strategy that would lead to academic success.

These learners can be trained to recognize particular self-defeating thoughts and feelings which they experience. Teachers can then develop questions which can guide students to make the most appropriate decisions about how to complete the task at hand. Learners can then be trained by rehearsing the questions and appropriate answers that would guide them. By engaging in self-talk learners are better able to manage their behaviours and feelings as well as identify the most appropriate resources which can support their learning experiences when faced with academic challenges. It is imperative, therefore, that teachers develop strategies that would help learners to improve their academic performance and take academic risks. When learners believe that they can be successful, their post-secondary school aspirations and career options can be improved.

Heavy Workload

Kyndt et al. (2014) posit that a student's workload plays a vital role in a student's learning experiences which can influence academic performance and well-being of learners. There are many definitions of workload. Workload can be defined as the number of hours on average a learner spends in meeting the requirements of a course (Kyndt et al., 2014). Others define workload as the amount of academic work a learner is required to complete within a specified timeframe such as weekly or by a semester. Thus, the amount of time spent in completing a task is normally the foundation used in several workload models (Bowyer, 2012, as cited in D'Eon & Yasinian, 2021).

A heavy workload can adversely affect a student's academic success. Issues which may arise include, but are not limited to, learner's lack of motivation and negative attitude towards learning, learners engaged in surface learning, procrastination, plagiarism, and increased drop-out rates. An increased workload can also influence non-academic activities which learners engage in

by creating stress, high levels of anxiety and feelings of burnout which can be a strong influence on their psychological well-being (Liu et al., 2015). It is notable that learners who are saddled with a heavy workload do not necessarily mean that they are learning more. Additionally, a heavy workload can also adversely affect a learner's physical well-being. A moderate workload, accordingly, can lead to improved levels of motivation and academic success among learners.

It is notable that the type of workload will impact academic performance. For instance, a student who is required to read large volumes of literature for an assignment may not have the same reaction when compared to a learner who is required to complete complex tasks. Therefore, the nature of the task will be a determining factor as to what would be considered a heavy workload.

In higher education, there are two main objective methods of calculating student workload, namely, American Credit Unit system, and the European Credit Transfer and Accumulation System (ECTS). The American Credit Unit system, according to Nosair and Hamdy (2017) measure workload according to the number of hours spent in the classroom, as well as other learning environments, to determine the number of credits. In the case of the SALCC, the average number of credit hours spent in a classroom environment each week is 3 credit hours. The ECTS, on the other hand, calculates course credits based on the time spent on the learning process (Nosair & Hamdy, 2017), but also includes the time spent on learning both inside and outside the classroom. However, while these measures indicate the amount of time spent on task it does not consider other influential factors, for example, learner ability, uniqueness, traits, and personal circumstances which may influence the amount of time required to complete a task (D'Eon & Yasinian, 2021).

Subjective methods of calculating workload, however, take into consideration other dimensions which include, but are not limited to, physical and mental demands, effort, performance frustration, feelings of burnout, pressure, and stress (D'Eon & Yasinian, 2022). Thus, these measures only highlight the impact of workload on learners. One limitation of the subjective method is that it can only be considered after the task has been completed, providing the learner's judgment about the nature of the task (Evans & Fendley, 2017; Korbach et al., 2017). Additionally, the subjective method ignores the complexity of the objective of the task or the learner's actual performance since the focus is primarily on comprehending the feelings of the learner while performing the task. It must be notable that while it is imperative to understand how the learner felt about the task and their perception of the workload, one cannot negate the relationship with the availability of resources and the effort of demand required to complete the task.

Effort is essential in comprehending, describing, and assessing student workload. Moreover, it is considered an important aspect in determining the level of a learner's academic performance. Thus, if students do not exhibit the required effort to complete their tasks, then curriculum planning and teaching strategies are going to be futile. While effort refers to the level of engagement in a task, time considers how often the learner engages in the task. Thus, time alone cannot be a determinant of effort since it does not consider the nature of the task (Wickens, 2014). Other studies put forward cognitive and physical effort as measurements in meeting the demands and requirements of courses (Atalay et al., 2016).

One cannot negate the fact that effort is associated with academic achievement. Thus, some students put in just enough effort to achieve a passing grade in a course, while others engage in the learning process to achieve a passing grade usually above the pass mark. There are factors which will influence the amount of effort one puts into achieving academic goals. These include,

but are not limited to, the learners' level of motivation, attitude, interest in the course, their cognitive abilities, perception about the task, time available to complete the task, prior knowledge in the subject area, self-esteem, and long-term and short-term goals (D'Eon & Yasinian, 2021).

There are several strategies which can be implemented to mitigate the negative impacts of heavy workload which include, but are not limited to, stating clear expectations and providing guidance for completing assignments, encouraging learners to manage their time to complete tasks, offering support to learners when necessary, providing adequate resources to complete tasks, providing flexible options to meeting timelines and promoting self-care practices aimed at reducing stress and managing their mental health. Additionally, alternative teaching strategies, such as blended learning, can reduce stress and provide an opportunity for flexibility to complete tasks and reduce workload.

New School Environment

Dhanapala (2021) posit that the learning environment can be categorized into the academic environment, psychological environment, and physical environment. Learning environment can also be positive or negative. A positive learning environment includes adequate social and physical resources that would facilitate effective learning experiences. For example, availability of a library, classroom, workshops, laboratories, proper school management and teacher effectiveness, just to name a few, which would affect learner academic performance. A negative learning environment is one where there is limited resources. This, however, can adversely affect learner's behaviour, increase levels of frustration, and cultivate a poor learning attitude among them. Additionally, having a poor learning environment does not only impact learners but teachers as well because it can create an uninviting and uncomfortable workplace for them. These poor working conditions can lower the enthusiasm of teachers, thereby having an adverse impact on the

academic performance of learners. Thus, the school environment can influence the quality of education, not only in terms of teacher output, but also in terms of the effectiveness of the school environment.

The extent to which learning takes place depends on the school plant, availability of adequate learning resources and the structure of the classroom. It is believed that a properly planned educational institution can facilitate effective teaching and learning and promote positive academic performance.

It has been documented that factors in the school or college environment can hinder or support students' development and academic success (Dhanapala, 2021). Thus, learners who are in a supportive learning environment are less likely to engage in negative behaviour. Having a positive school environment promotes a sense of belongingness, connectedness and community among learners and teachers. As a result, learners become more engaged and motivated to learn.

Teacher - Student Interaction

Learners' relationships with their teachers can influence their academic performance. Ginsberg and Wlodkowski (2019) posit that student behaviour and motivation to learn can be influenced by students' attitudes toward their teachers. Students who are confident in their tutors' abilities generally excel in those particular subjects. These students can be perceived as being highly motivated, possessing a positive attitude and are likely to become high achievers. Conversely, students who dislike their teachers may develop a negative attitude in the particular subject area. They become complacent and develop a poor work ethic and, as a result, this may contribute to their low academic performance.

Jackson et al. (1993, as cited in Tan, 2019) put forward the view that it is the opinion of most individuals that teachers are seen as role models who develop learners morally because of

who they are. They found that the teacher's style had considerable moral impact on the student. The teacher's style denotes the teacher's way of leading and engaging in classroom activities and the teacher's personal qualities unintentionally reflect his/her moral outlook. Campbell (2003) who carried out studies of teachers' professional ethics in the 1990's recently presented a study of teachers as moral agents. She postulates that this involves the willingness of teachers to assist learners to be better and how they relate to these learners.

Campbell (2003, as cited in Thornberg et al., 2022), reveals that it is the moral responsibility of teachers to treat learners appropriately by not humiliating or ridiculing them. Additionally, learners should be treated equally regardless of their diverse needs. Some students fear that if they enquire about concepts not understood in class they will be ridiculed by teachers and students, thereby choosing to remain silent and ignorant. This can lead to poor performance and give the teacher the impression that these students are not interested in the subject area. The teacher may see them as having poor work ethic but have not perceived the fact that they have not created a positive and non-threatening environment for student-development. Thornberg et al. (2022) confirm that the lack of communication and interaction between the teacher and student are key factors which can shape a student's work ethic and academic performance.

Teacher-Student Ratio

Writers have found a significant connection between student-teacher ratio and academic performance as supported by (Etomes & Lyonga, 2020). Babalola and Nike (2021) posit that the National Educational Policy of 2014 stipulates an ideal student ratio of 1:25 for pre-primary level of education, 1: 35 for primary school and 1:40 for secondary education. Babalola and Nike (2021) go on to the state that a higher student-teacher ratio can lead to poor academic performance. There are, however, advantages to having larger classes. Educational institutions can be in a better

position to accommodate more students and be more efficient in the deployment of staff when faced with limited plant facilities and limited budget. However, having a larger class size continues to be an issue since it is thought to have an influence on academic success (Maringe & Sing, 2014). During the early years of a learner's academic career, particularly in elementary and secondary schools, some studies found that having smaller classes resulted in good academic performance. In higher education however, some writers posit that there seems to be no relationship between class size and academic success. Thus, more research is required to comprehend the relationship between class size and classroom dynamics. There are however limitations and advantages when it comes to learner engagement and class size. When class sizes are smaller learners are more visible and actively engaged in the learning experience. Learners are better able to increase their level of participation and interaction. However, large classes afford learners the opportunity to be less visible in class.

Class size can also have a negative influence on classroom processes and by extension learning experience. Teachers with smaller classes are better able to provide individual attention to learners, control their learning environment and cultivate a better relationship with learners. As such, these learners will be better engaged in the learning environment and socially engage with their peers and teachers.

Etomes & Lyonga (2020) argue that not only does class size influences academic performance but highlights also that the effectiveness of teaching practices can have a positive or adverse influence on student academic performance. Olibor (2019), in a study which examines the effectiveness of teachers on academic performance, discover that teacher effectiveness include creating a conducive learning environment, having a positive relationship with learners, monitoring learners, providing timely feedback, planning, and organizing classwork, utilizing

diverse teaching materials to meet learner needs and communicating effectively with learners are significant to the having positive learning outcomes. Further, Burroughs et al. (2019) forward the argument that teacher experience impacts academic performance. Gulled (2021), argues that teacher qualifications also have a significant influence on academic performance particularly as it relates to diverse disciplines of education. Moreover, Gulled (2021) posits that the more advanced a teacher's qualifications there is a likelihood of improved learner academic performance.

The role of teachers in the success and engagement of students can also influence their academic performance (Burroughs et al., 2019). This is of particular importance during the first semester of the learners' transition into a new learning institution. Rashid and Zaman (2018) purport variables such as the importance of teacher behavior and attitude as having a significant influence on student engagement, thus influencing their academic performance. Thus, Gan (2021) in a study identifies student-teacher relatedness as fundamental to student engagement and academic performance. A study by Pandey and Thapa (2018) reveal that if there is a significant relationship between teachers and their students this relationship can improve learner academic performance.

Instructional Strategies

This involves all facets of the lesson including strategies in teaching, conduct and disposition that teachers display while teaching. Teaching and learning strategies have been the focal point in recent years in the education system. There has been a keen interest in adopting teaching and learning strategies for achieving successful academic performance. Moreover, implementing the most suitable teaching and learning strategies can not only enable teachers to meet the needs of learners but, also, it would encourage and inspire learners to participate in the learning process. Mahasneh and Alwan (2018) argue that implementing the most appropriate

teaching strategies can enable teachers to provide the most appropriate supporting approaches that would lead to successful academic performance. Khanshan and Yousefi (2020) posit that teacher self-efficacy is significantly influenced by teacher support programs. Moreover, Poulou et al. (2019) support this notion by positing that teacher self-efficacy promotes the use of the most appropriate instructional strategies towards empowering learners to complete their tasks. Additionally, Poulou et al. (2018) argue that utilizing the most appropriate teaching methods would be beneficial to not only teachers but also it would enable to deliver high quality teaching to learners. Moreover, teachers utilize diverse teaching strategies which would enable them to achieve learning outcomes. Further, according to Choi et al. (2019) this enables teachers to play a fundamental role in students' learning experiences. In doing so, teachers can employ diverse learning material such as handouts, videos and portfolios aimed at influencing the students' learning process with the aim of producing positive learning outcomes. Utilizing diverse teaching methods would empower teachers because they would be confident about their teaching ability, skills, and teaching approaches. Moreover, the teacher's self-efficacy can influence whether or not students have a positive or negative learning experience and academic performance (Yerdelen & Sungur, 2019). Thus, Mahasneh and Alwan's (2018) research show that teaching methods improve student learning by significantly encouraging teacher self-efficacy. Thus, employing the most appropriate teaching methods would significantly impact the learner's academic goals, as well as the teacher's self-efficacy and confidence in their teaching ability. Hayat et al. (2020) posit that many writers have highlighted the fact that teacher self-efficacy, as well as the implementation of new and diverse teaching strategies, have been instrumental in improving the grades of learners. This notion is supported by Ghaffar et al. (2019).

Moreover, the instructional policies implemented by teachers in the classroom can enable them to effectively overcome the challenges experienced by learners, thus creating a positive learning experience for them. In doing so, teachers are able to employ the most appropriate instructional practice with the aim of regulating classroom learning experiences (Suprayogi et al., 2017). Within the secondary education level, a more teacher-centered teaching approach is taken. Thus, students derive information from teachers without increasing their level of engagement in the subject area. The teaching approaches are less activity based which would enable students to apply their knowledge to real life situations. Thus, teachers are able to transmit and share information while maximizing their delivery and minimizing their time and effort in doing so. Consequently, this may result in students losing interest in class. To overcome this challenge teachers are encouraged to engage learners to participate in the learning process.

However, at the tertiary level of education, a student-centered approach to learning is adopted. In doing so, teachers can take a discovery learning approach where learners are more actively engaged in the learning process. Teachers are able to implement lessons that promote critical thinking and problem solving with the aim of generating interest and enjoyment among learners. However, in doing so, teachers must not negate the fact that students learn differently, and this must be a consideration when developing their teaching strategies.

The arbitrary use of the lecture strategy which predominantly obtains at the tertiary level of education is increasingly overshadowing other teaching approaches such as discussion, discovery learning and portfolios, just to name a few. The continuous use of the lecture approach has gradually restricted the effective teaching and learning process because it inhibits learners from determining their learning styles and implementing them while they are learning. Learners who are taught, utilizing the most appropriate approach to meet their needs, tend to understand the

lesson taught as well as showing improvement in their academic performance. Thus, a learner's ability is predominantly reliant on their learning preference. Once learners are able to identify their primary learning style, they can focus and improve their capacity for learning, as well as to improve on their learning experiences.

At the tertiary level of education, it is assumed that learners are capable of understanding the lesson content including assignments which are issued to them. However, little attention is given to the learning approaches of students, as well as the learning styles employed by them, in this process. Essentially, the teaching approaches employed by the teacher should complement the students' learning preferences. Teachers should, therefore, adapt the most suitable teaching method to meet learners' needs and most preferred learning styles. However, some teachers are unaware of the most suitable teaching approach because they do not consider the learners' individual differences even though the student-centered approach is centrally based on diversity, inclusivity, and cooperative learning. It is, therefore, important to understand the concept of learning styles.

It is essential, also, that the curriculum must be set at a standard that is attainable by students, given their level of education. This ensures that students can grasp concepts that are being taught. If a lesson is not organized, the student may lose interest. This can create anxiety in learners, as they may not be motivated to work since they become frustrated each time that they have to attend class. Consequently, students may not participate in class or decide not to attend at all. This can result in poor academic performance as students can be seen as developing poor work ethic because they display a lack of interest in their work. Some students, upon entry to the college, may already have a fair background in some subjects, whereas others may have limited knowledge or no experience at all. These aforementioned students find it difficult to transition to that level,

find it frustrating to be in class, perform poorly and they are perceived by others, including their tutors, as possessing poor work ethic. Invariably, teachers have to be innovative in their instructional practices to convey concepts to learners without causing discomfort to anyone and alienating them. By adopting creative instructional strategies, teachers are able to assist learners and help to foster good work ethic which results in positive learning outcomes and academic success.

Being able to critically reflect on one's teaching practices is fundamental to teacher development and enhancing the learning experiences of students. There are many benefits to being a reflective teacher, which includes the development of rational teaching practices. This allows for adjustments of the teacher's teaching approaches to meet the learning requirements or styles of the learner. By understanding how students learn, teachers can identify various teaching methods which can be implemented in the classroom in order to effectively reach learners. In doing so, the quality of teaching can be improved and is often reflected in the academic performance of learners.

It is notable that some untrained teachers assign blame to students rather than themselves because of their inability to achieve the learning outcomes of a lesson or even their learner's success at examinations. Thus, qualified, and certified teachers are capable of assisting their students to learn, because of the training received in understanding how students learn and, thus, are able to tailor their teaching strategies in their pedagogical approaches to suit the learning styles of learners. Several studies have used strategic tools such as the VARK (visual, aural, read/write and kinesthetic) questionnaire to identify and comprehend the learning preferences of student but none of these studies have investigated the association between specific student preferences and academic performance.

A student's learning style has been described by writers such as Pritchard (2013) as a method of acquiring knowledge in four diverse ways. These include patterns of attitudes, tendency to pursue situations, cognitive style, as well as inclination to utilize some strategies ahead of others (Pritchard, 2013). It is therefore imperative to create a learning environment where there is a heightened awareness between students, teachers and learning materials. Many studies suggest that there are advantages to those learners whose learning styles correlate with that of the teacher. The writers note that learners outperform and comprehend concepts taught better than those whose learning styles are different to that of the teacher. These writers argue that the learning styles utilized are the conduit through which information is imparted to learners. The following are examples of learning styles and how they can influence the academic performance of learners.

Firstly, active learning is defined by Hernández-de-Menéndez et al. (2019) as a student-centered-learning method which necessitates that the learner is directly involved in the learning process by engaging in meaningful task and thinking critically about the task at hand. Thus, this learning style allows learners to explore varied experiences and also affords teachers the opportunity to use a variety of active approaches to learning in the classroom. Active learning is best suited for small classes, which allows the teacher the opportunity to monitor the progress of students. What, then, is the impact of active learning on academic performance? Writers such as Gappi (2013) posits that there is a close association between active learning and academic performance. Gappi (2013) continues to posit that utilizing the wrong learning style is detrimental to the students' learning outcomes. Teachers, therefore, should apply the most suitable active learning strategies that would encourage student involvement, peer evaluation, feedback and assessment that would improve academic performance. Strategies such as discussions which

would stimulate critical thinking and problem-solving, improve the communication skills of learners, foster teamwork, as well as engendering reflective practices among learners.

While there are advantages to the active learning style, it is not without its limitations. Firstly, due to the limited time spent with learners some educational institutions do not have the capacity that would allow learners to take advantage of this learning style. Additionally, some students who find it difficult to transition to a student-centered learning environment may find it difficult to cope with an active learning style which forces them to concentrate on arduous and lengthy tasks. Therefore, if learners are not used to this type of approach, it may not be the most suitable for them because it may result in poor learning outcomes.

Secondly, visual learning is a learning style by which learners understand and remember information by sight. These learners can be categorized as spatial and linguistic learners. Those learners who are visual-linguistic are more inclined to learn through reading and writing. Conversely, those learners who are visual-spatial perform better in charts, videos, demonstrations, as well as other visual material, rather than written languages. It must be notable that visual learners find it challenging to remember concepts taught completely in writing or verbally, without any demonstration or diagrammatic representation. Thus, visual learners are better capable at memorizing or understanding the learning material when exposed to pictures or diagrams of it. Thus, a sound memory and comprehension of the learning material would enable learners to achieve positive learning outcomes (Gokalp, 2013). Students who prefer the visual learning style tend to possess the following characteristics: record their own notes, utilize diagrams and tables when organizing information, they are meticulous and are good observers. While there are benefits to employing the visual learning style, it is not without limitations. Some limitations include, but are not limited to, requiring more time on tasks, poor concentration if the learning environment is

not conducive to learning, and may only be interested in the outcome and not the task itself. If the right teaching strategies are implemented the visual learning style can improve learner academic performance.

Thirdly, verbal learning style, according to Willingham et al. (2015), is a learning style where students respond to information using various auditory methods. Essentially, this implies that learners learn by listening to individuals and writing down information (Willingham et al., 2015). Moreover, these learners are able to analyze, solve problems and learn through speaking and writing (Karthigeyan & Nirmala, 2013). Additionally, these learners are better able to comprehend information when trying to explain to others (Kolb, 2015). Therefore, teaching strategies such as oral discussions and debates would provide learners the opportunity to increase their understanding of concepts taught (Smith, 2019). The learners are not apprehensive about public speaking and oral presentations as they find these experiences engaging and informative. They tend to recall information by reading aloud for themselves. Their ability to seamlessly recall information also contributes to their ability to perform academically. However, these learners may experience drawbacks of not being capable of learning with only oral instructions and much information should be received in writing. Moreover, some of these learners are incapable of comprehending and explaining graphical information.

Lastly, the sequential learning style, according to Willingham et al. (2015), necessitates that information is provided in an orderly and linear fashion which allows sequential learners to be able to comprehend and retain information in a sequential manner. Moreover, they are very systematic and organized in their approach (Willingham et. al., 2015). Therefore, it is imperative that they accomplish one phase of the learning process before progressing to the next phase. These learners perform well because they can solve problems systematically since they are capable of

merging the details to enable them to comprehend the bigger picture. This step-by-step instruction provides these learners with the opportunity to gain as much knowledge as possible that would lead to positive learning outcomes. However, if the information provided is incomplete these learners can feel lost (Rogowsky et. al., 2015). It is therefore the teacher's responsibility to provide them with all the information in a logical manner to enable them to comprehend and improve on their learning experiences. Learners who prefer the sequential learning style exhibit the following characteristics which include, but not limited to, having good time-management skills, they categorize things, they plan and label and divide notes. However, one of the limitations of the sequential learning style is the frustration felt by these learners when other students are not able to understand concepts as efficiently as they do. Thus, if utilized appropriately, this can contribute to positive learning outcomes for learners.

It must be notable that the learning style that one student can effectively employ can affect the learning process of other learners. It is imperative, therefore, that teachers utilize the most appropriate teaching strategies which can cater to a diverse group, learning styles in order to foster sustainable academic performance across learning differences.

A learner's workload is an essential factor in their learning experiences. The quantity of workload a student carries can influence their learning outcome, level of motivation and academic achievement. However, a student's workload can have either a positive or negative influence on academic performance. Sweller's (2019) Cognitive Load Theory argues that learners have a limited working memory capacity and, therefore, is vulnerable to overload which, for example, can impede learning novel complicated concepts. Thus, a heavy workload, according to Yangdon et. al. (2021), can lead to burnout, stress, disengagement, and poor academic performance. However, a moderate workload can be challenging and motivating to other learners. This argument

is supported by Smith (2019) who posits that this can lead to increased motivation and academic achievement. It is important, therefore, to strike a balance between how learners learn and what strategies can be utilized to create a more efficient, effective, and engaging learning experience. If this is done, students will be better positioned to retain more information, thereby enhancing their learning which can lead to a more sustainable academic performance. However, Jayarukshi and De Alwis's (2019) study, finds that there is no significant relationship between workload and academic performance.

Teacher Expectations

Teacher expectations are inferences made about the future behaviour or academic achievement of students. Rashid and Zaman (2018) posit that the judgement of teachers often influences the academic performance of students by either facilitating or inhibiting their motivation and desire for learning. Some teachers subconsciously respond to students based on their perceptions of them. As a result of treating students according to different scales, students respond differently and often in accordance with the teacher's expectations. This disparity in the teacher's conduct can affect students' achievement motivation, aspiration level and self-concept. For instance, it is noted that some teachers form their expectations of students based on their socio-economic backgrounds and learning experiences of the students' parents. As such, these teachers tend to be more attentive to children of professionals and entrepreneurs because they expect them to perform exceptionally at school. Conversely, some students who are from low socio-economic backgrounds are not afforded the same amount of attention and time because they may have low expectations of these students. But this perception may not necessarily be accurate. Some students from affluent families do not apply themselves at school because they rely on their parents'

resources to take them through life. While some students from low economic backgrounds perform exceedingly well as they have concluded that education is their solution to poverty.

Further, many students mirror the teacher's perceptions of themselves. If students are expected to perform poorly, they are likely to lower their level of aspiration. In response to this, the teacher accepts the poor performance and attributes it to lack of ability. As a result, the low expectation of the student is confirmed. The teacher may also deny any outstanding performance by low achievers as it may be perceived that they have cheated. This can result in students becoming frustrated and having a negative attitude in general towards work and as a consequence, according to Tumin et al. (2020), will develop a poor work ethic. Rather than trying to excel, some students reconcile themselves with the judgment placed on them by the teacher. Thus, it is essential for teachers to be unbiased in their expectations of students and develop the belief that all students have the capacity to learn and achieve positive learning outcomes and academic performance regardless of their socio-economic backgrounds and disposition. Additionally, to ensure positive learning outcomes would require setting realistic expectations for students, honesty, completion and submission of tasks, good lesson attendance and active student participation (Panda, 2022).

Student Expectations of the Learning Institution

Students have expectations for the learning institution even before they have gained acceptance and enrolled into their respective programs. They have expectations with regard to learning resources, workload and relationships with teachers and colleagues which may shape their satisfaction with their learning experiences and academic success. Teachers also have their own expectations of the learners' behaviour which can similarly influence the learning experience and the learning environment. However, sometimes when the expectations of learners and teachers are misaligned, the learners' satisfaction and teacher morale can be deflated.

Muenks et al. (2018) posit that according to the expectancy-value theory of achievement motivation, prior academic success is expected to influence the learners' education expectations which in turn would influence their future success. Putwain et al. (2019) posit that the correlation between a learners' positive expectations and future success can result in high levels of academic engagement. However, sometimes the correlation between expectations and academic success can be low, particularly when students overestimate their future academic success where the grades received are significantly lower than expected. However, learners who are generally low performers set low expectations for themselves and, as such, continue to be poor performers. It must be noted that having high expectations can be a motivating factor because it can lead to increased efforts and persistence by learners which would eventually result in high academic achievement.

Some writers posit that student-satisfaction is also influenced by their expectations in the quality of service of the learning institution, while other writers put forward that there is a direct relationship between satisfaction and expectations (Rio-Rama et. al., 2021). Tukiran et al. (2021) continue that expectation may indirectly or directly influence satisfaction. Lee and Anantharaman (2013), however, argue that there are several decisions made by learners at institutions of higher education that can influence their satisfaction which include, but are not limited to, the reputation of the institution, cost of study, course design, interactions with the institutions and social life.

In the education sector, the reputation of a learning institution is assessed based on its year of establishment, quality of faculty and staff, employability of graduates, the quantity of first-class graduates, learner satisfaction and alumni association (Khalifa et. al., 2021). These variables can create positive word-of-mouth among current and prospective learners. The media can also be instrumental in creating a positive outlook about the learning institution in the minds of prospective

learners. Studies by Rofingatun and Larasati (2021) and Alvis and Rapaso (2007 as cited in Khan and Hamsely-Brown (2021) cite that there is a correlation between the reputation of learning institution and student expectation and satisfaction. Additionally, Rofingatun and Larasati (2021) posit that the reputation of the learning institution has a direct influence on the expectations of the quality of service received and learner satisfaction. This is supported by Saleem et al. (2017) who argue that there is a positive correlation between the reputation of learning institutions and favourable levels of learner satisfaction.

In institutions of higher education, course design references the structure and relevant learning materials and resources, mode of course delivery and the match between learning objectives and learning outcomes. Additionally, course design incorporates diverse forms of assessments and evaluation employed to test the learner's knowledge. The structure and standards of the design of courses are significant to accommodate meaningful learning experiences. While some studies support a relationship between course design and learning outcomes, other writers argue that there is a relationship between course design and satisfaction of learners. Curtis and Anderson (2021) posit that course design plays a vital role in the learner's expectations of their learning outcomes. Thus, course design is critical to academic engagement and success. High quality course design creates a perception of good teaching quality which results in positive learner expectations. However, the perception of learners when it comes to course design is different for learners who pay tuition fees as opposed to learners who receive financial support.

The support received from the learning institution is critical to learner satisfaction. Thus, the quality of service which includes interactions between learners and teachers and learners and administrators are seen to be correlated with learner satisfaction. It includes all touchpoints encountered by learners from their admission to the learning institution to graduation. It must be

notable that when evaluating the quality of service at institutions of higher education it takes into consideration two variables: quality of the instruction and learning, as well as the quality of the learners' total experience (Woodall et al., 2014). However, there are differences in the approach to students' services across institutions of higher learning. Thus, if these institutions provide good student experiences this may reduce the discomfort of paying high tuition fees while improving on the satisfaction of learners. However, literature on service quality has produced mixed reviews as to the relationship between service quality and learner satisfaction.

Social life on campus can enhance the learning experiences of learners. Thus, writers such as Osman and Saputra (2019) posit that learning institution's image can be enhanced by offering the opportunity for learner to experience varied social activities during their tenure. In doing so, the learning institution is able to attract more prospective students by influencing their expectations of what campus life will entail. Thus, having social activities on campus will enhance the health and wellbeing of learners, creating positive mindset thereby increasing the possibility of increased academic performance and satisfaction. Providing opportunities for learners to be engaged in social activities can mitigate against the negative feelings in paying high tuition fees.

The tuition fees at the tertiary level of education can be very high. While some learners are able to work while going to school to support their education, others are faced with the option of taking a student loan, yet some are fortunate to obtain a bursary or scholarship. Students who work and take a loan are more likely to have a high level of anxiety making payments to facilitate their education which could negatively impact their learning experience, particularly if their expectations are not met. While some students who were fortunate to obtain bursaries or scholarships work hard and apply themselves, others do not apply themselves to meet the expectations of the learning institutions because they do not feel inclined to work hard since they

do not have the responsibility of paying tuition fees. Thus, writers such as Woodall et al. (2014) posit that students who are responsible for paying their tuition fees are more likely to complain about the learning institution and express their dissatisfaction with the learning institution than those who received scholarships or bursaries.

Individuals desirous of earning more on the job market would gravitate towards earning a higher education qualification. Having a higher education qualification will increase the likelihood of better job prospects while at the same time having the expectation of earning a graduate salary. Some learning institutions offer support to graduates with finding employment thus reducing the anxiety associated with paying tuition fees. These favourable opportunities can lead to positive recommendations to prospective learners (Najimdeen et al., 2021).

Relevance of the Curriculum

A curriculum is a blueprint for learning or a policy statement that outlines the content, activities, and forms of assessments which a learner will encounter during their course of study. It affords learners the opportunity to be well-rounded and knowledgeable as well as provide them with the requisite skills in the subject area. It is predominantly based on the learner's academic level and their prospective academic goals or endeavours. Moreover, it is also referred to as a contract between the learning institution, society and the student which outlines the learning experiences which learners should be exposed to at different levels of their academic career.

Learners who complete a comprehensive curriculum tend to excel, have better test scores, and have a better comprehension of the content taught. Moreover, they are able to develop their critical thinking and problem-solving skills as well as more effective communication skills which are invaluable in preparing for the future.

The curriculum also describes the nature of the learning experiences, the teaching methods used for the learning materials and forms of evaluation as well in the subject area. It provides learners with a description of the course, the aim of the course, as well as the learning outcomes of the course. Goals and objectives are the expected learning outcomes that are determined by the teacher which restricts what the learner is expected to learn. The grading schemes allow learners to know the nature of the activities that are required to test their knowledge in the subject area, as well as how the grades are allocated for each form of assessment. Additionally, it provides learners with the sequence of the content and learning experiences that the learner will encounter in the subject area. It provides teachers and learners with the supporting materials that are required to enhance the learner's experience in the subject area. Learners are also able to know in advance what is required for the successful completion of the course.

Yu and Mocan (2019) posit that the intensity and significance of the curriculum at the secondary school level of education can be a predictor of whether students may choose to transition to post-secondary level of education. A curriculum ensures that students are taught material that are relevant for various industries, and also provides an opportunity for learners to regulate their learning, and teachers to monitor the learners' performance. If a curriculum does not exist, teachers are likely to teach in an abstract manner with no concept of the learning outcomes or the learners' level of preparedness for study at the post-secondary level. Thus, if students are knowledgeable of the sequence of their courses and assessments, they can practice self-regulatory learning strategies to ensure that they are on track to achieve their academic goals and competencies.

Additionally, a curriculum teaches students non-academic competencies such as good work ethic, responsibility, and responsible citizenship, with the aim of inculcating positive characteristics in students. This type of positive reinforcement can contribute to a learner's

sustainable academic performance and work life. Thus, the Sir Arthur Lewis Community College (SALCC) has seen the merits in instilling positive values in students. The SALCC continuously updates its curriculum, identifying key graduate attributes which would encourage positive character in students and have embedded them in the curriculum. In the end, the SALCC hopes to graduate students will acquire not only skills and competencies for the workforce but also to become good citizens.

Once the curriculum of the SALCC has been written or updated, it is reviewed by personnel within various industries to ensure that it meets industry standards not only in requisite knowledge, skills and competencies but also keeps the curriculum relevant and, therefore, puts students in a better position to gain employment in the relevant fields. Yu and Mocan (2019), in their study, find that once curriculum reform is done it has a positive impact on learner outcomes. Moreover, learners are willing to learn, more engaged in their learning environment and more eager to master their course material. In doing so, they are better prepared for success at the higher level of education and in the workforce.

The intensity of a program and the duration in which to perform tasks can impact students' academic performance. Some students who are apprehensive about performing tasks successfully become anxious and this may impact their behaviour significantly. Such students may delay fulfilling their tasks or may even abandon them. A common way for these students to cope with their situation is to resort to unbecoming behaviour so as not to complete their work. These behaviours exhibited by students indicate poor work ethic. Tumin et al. (2020) postulate that some students also experience stress, anxiety and also develop mental health issues as a consequence of their inability to cope.

The learners' level of anxiety towards the completion of a program can contribute to poor academic performance. Yangdon et al. (2021) observe that in some cases people who are very anxious tend to perform lower on assessments that test learner aptitude than people who are less anxious. These students tend to engage in unacceptable behaviour in an effort to succeed. These behaviours exhibited by students indicate poor work ethic. However, Yangdon et al. (2021) continue to assert that the opposite may occur in that, sometimes, anxiety can improve academic performance on simple tasks. Students who are highly motivated and have a positive work ethic are more likely to demonstrate competence by completing their assignments. These factors have consequences for teachers while in the course of attempting to complete the program of study within the specified timeframe. Thus, teachers must be imaginative in their endeavor to alleviate this problem.

It is not enough that the curriculum taught prepares learners for the workforce, but it is essential that learning institutions prepare learners for the uncertainty that exists, not only locally but on the global scale. Employability is not just about gaining employment but also developing techniques, attributes, and experiences in the long run. It is essential that post-secondary educational institutions ensure that learners are cognizant of their roles as global citizens in an evolving international, multicultural environment and to equip them for success in the global landscape. In doing so, the portability of the curriculum enhances the prospects for learners to excel on the global scale. Thus, with the increased emphasis placed on employability there is an increased pressure on institutions of higher education to improve on their product offerings by including co-curricular and extra-curricular activities which can form part of their formal education and assessment. These activities provide learners with opportunities for networking and gaining practical experience which enables them to apply their theoretical knowledge gained in

the subject area. Employers are also eager to participate in these work experience initiatives since work experience is normally a criterion for employment.

Work integrated activities provide an opportunity for employers and learning institutions to collaborate in order to provide a pool of future talent that would meet industry standards and needs.

Performance Assessment Systems

Assessment is defined as the systematic collection and evaluation of information to enhance student learning. Moreover, it enables teachers to assess the effectiveness of their teaching by linking the performance of students with specific learning outcomes. Additionally, it provides feedback for both teachers and learners to determine the extent to which learning outcomes have been achieved, thus, providing documentary evidence and validation that meaningful learning has occurred.

There are two categories of assessments namely: assessments of learning and assessments for learning. Assessments of learning is reliable and objective such as utilizing summative assessments which require more formal assessments, as well as rubrics or mark schemes to ensure that the process is reliable. Alternatively, the educator can utilize assessments for learning which requires a formative approach where the emphasis is placed on feedback to improve the academic performance of learners by implementing the use of portfolios or course work which provides information which reflects a broad overview of the subject area.

To gain entry into the SALCC, necessitates the successful completion of the Caribbean Secondary Examination Certificate (CSEC) examination. Thus, this performance assessment system is used to assess the students' factual knowledge in an area of study at the end of five years at secondary school. However, this type of assessment can encourage surface learning and

cramming in an effort by students to be successful in this examination. Unfortunately, this examination does not reflect the academic competencies required for study at the SALCC but, rather, it is a performance assessment system to determine what students comprehend from what they don't know at the end of five years of study at a secondary school. As a consequence, while students may attain the required passes of subjects at CSEC it does not assess the students' level of competence, critical thinking and problem-solving skills that are required for study at the post-secondary level and, therefore, can have an impact on their sustainable academic performance.

There are different forms of assessment which teachers can implement in the learning process. These forms of assessments include formative and formative assessment, informal and formal assessment, continuous and final assessment, process, and product assessment, as well as divergent and convergent assessment. Below, offers a comparative analysis of each form of assessment.

Formative and Summative Assessment

Educators utilize formative assessments to provide students with feedback during the learning process. This is critical in identifying prospective strengths and weaknesses aimed at improving the learners' academic performance. Formative assessment is utilized most appropriately where results are to be utilized by those involved in the learning process. However, summative assessment is primarily utilized to help inform decisions on grading and, additionally, to determine the academic readiness of learners for progression. Essentially, summative assessment takes place at the end of the academic period or activity and is primarily created to judge the learners' overall academic performance. Moreover, summative assessment is utilized to communicate the learners' ability to all stakeholders and prospective employers.

Informal and Formal Assessment

Informal assessments are where judgements are combined with other tasks. It is the most commonly used to provide formative feedback. Informative assessments are less intimidating and, therefore, less arduous for learners. A limitation when using informal assessments is that feedback is prone to bias or high levels of subjectivity. However, formal assessments are used when learners are informed that the tasks which they are embarking on is for assessment purposes. Additionally, many formal assessments are also summative by nature and, therefore, has a greater influence motivationally but, unfortunately, increase the stress level of learners. The reliability and validity of formal assessments ensures that it is more pertinent than informal assessments when it comes to making critical decisions during the learning process.

Continuous and Final Assessment

Educators utilize continuous assessment as an alternative to final assessments. Thus, continuous assessments occur intermittently throughout the learning period and are most appropriate to determine the learners' level of understanding of concepts taught before progressing to the next activity. Continuous assessments provide learners and teachers with information that would improve the teaching and learning experience of learners within the subject area. While there are advantages to continuous assessments, unfortunately, it is very time-consuming to develop and involve more academic effort on learners. Final assessments, on the other hand, are assessments completed at the end of the academic period. It is most useful when the learners' academic performance can only be evaluated as a whole rather than intermittently as obtained with continuous assessments. Final assessments, essentially, are utilized for summative decision making.

Process and Product Assessment

Process assessments are used to determine a learners' capacity to complete a task by following steps or procedures involved in learning a new skill and for providing formative feedback aimed at improving performance. Thus, it focuses on assessing the results or outcomes of completing the task. Conversely, product assessment is utilized primarily to determine proficiency or competency in a skill. Generally, product assessments are easier to develop than process assessments since they only require an assessment of certain attributes of the final task.

Divergent and Convergent Assessment

Educators utilize divergent assessments since it offers learners a range of solutions or answers which might be considered correct, for example, discussion questions or essays. Divergent assessments is an authentic form of assessment since it allows learners to be assessed based on their cognitive ability. Unfortunately, these forms of assessments are tedious to assess, and responses lack reliability. On the other hand, convergent assessment is used to test the learners' knowledge by providing only one correct response per item tested. This form of assessment is easier to evaluate or grade than divergent assessments. Unfortunately, because it is easy to implement many educators utilize this form of assessment even when it is contrary to best practice.

At the SALCC, there are two forms of assessments, namely: formative assessment and summative assessment. Courses at the SALCC can require both forms of assessments. Summative assessments come in the form of a final examination which takes place at the end of each semester and may account for either 50% or 60% of the students' final grade. Formative assessments are conducted throughout the semester and may be composed of course work and homework which usually accounts for 40% or 50% of a student's final grade. Courses with only formative

assessments are assessed through a series of activities which can comprise homework and course work which accounts for 100% of the student's final grade.

While summative assessment courses provide information about patterns of student achievement, it does not afford the learners the opportunity to reflect on their performance, identify areas of improvement and does not provide the learning institution the latitude to modify its teaching strategies during the learning process (Yambi & Yambi, 2020). Those that are formatively assessed allow for opportunity for feedback to students, identification of areas of strengths and weaknesses and provides opportunity for students to identify important areas of necessary growth and development for themselves (Yambi & Yambi, 2020).

Evaluations, however, is a more scientific method of assessments which determines a learner's academic performance and how it can be measured. Moreover, it is concerned with measures of validity, reliability, accuracy, analysis, and reporting of information. Additionally, it is a systematic approach to gathering information for decision-making utilizing both qualitative and quantitative methods of gathering information. However, evaluation and assessments are similar since they both require criteria and the collection of data. Their purposes can also be differentiated in terms of their processes, purpose, criteria, and response.

Further, according to Howard and Donaghue (2015), evaluation is the process of gathering data periodically which is analyzed, and the information used to determine the effectiveness of teaching programs and the extent to which the objectives and results are achieved. It is imperative that teachers conduct internal evaluations to obtain information about the learners' academic performance within programs so that informed decisions can be made about teaching practices within the respective programs. Internal evaluation is a continuous process and consistently applied by teachers at all levels within the academic institution. Additionally, other stakeholders

including managers and other beneficiaries should be involved in the evaluation process. Howard and Donaghue (2015) posit that the conscious commitment by all stakeholders in the evaluation process will result in making critical decisions and improvements within programs.

While most evaluations are completed internally, there is a need for periodical external evaluations by stakeholders outside of the learning institution or program of study. Moreover, some situations require external assessments to be conducted periodically to be able to provide an alternative point of view on processes which have been highlighted but could not be otherwise adequately diagnosed through internal evaluations.

Effective teaching practices and the learning process requires clearly stated learning objectives, classroom activities and feedback aimed at making students improve on their academic performance. Evaluation and assessments are essential to the learning process in gathering critical information about the learner's academic performance and learning experiences. The data gathered is useful for making improvements such as teaching methods, content delivery, classroom environment and providing feedback both quantitatively and qualitatively.

During the examination process, some students tend to develop fear and anxiety about being unsuccessful in their examinations or not being able to meet the benchmark for success when compared to their colleagues or siblings. Fear and anxiety about examinations or schoolwork can have an influence on the grades of students which can be either negative or positive. While anxiety could increase a learner's level of motivation, effort, focus and higher grades, for others, it could be devastating. Some students tend to procrastinate, worry, or experience lack of concentration leading up to the examination, limiting the amount of time for revision. Moreover, anxiety during an examination can cause learners to not be able to concentrate and focus thus causing them to forget key concepts that are required to successfully complete the examination. While some

researchers such as Bolbolian et al. (2021) agree that anxiety can result in procrastination, others such as Cassady and Johnson, as cited in Bolbolian (2021), agree to the contrary. Uzun (2010, as cited in Bolbolian (2021), find no significant relationship between anxiety and procrastination. Since procrastination is a normal occurrence among learners which unfortunately can result in poor academic performance, it is imperative, therefore, to understand the causes of academic procrastination in order to mitigate it since it is vital for academic success and progress.

Fear and Test Anxiety

A learner's self-concept is a consequence of the behaviour of other people in their life toward them on academic matters. For example, the unrealistic expectations and harsh criticism of teachers can create test anxiety. This negative behaviour can reduce the learner's self-concept resulting in test anxiety. Conversely, offering positive reinforcement to learners can increase their self-confidence in accomplishing related tasks.

The relationship between parents and learners can influence their academic success. Parents who are supportive and encouraging towards their children enable learners to display self-confidence, self-concept, and experience less anxiety during examinations. However, parents who scold, punish, and show a lack of support instead of praising their child can have a negative influence on their self-concept, thus leading to increased anxiety and eventually poor academic performance.

When learners have a lack of self-confidence, they can exhibit negative thinking and become pessimistic. This negativity about their results can interfere with their ability to succeed. The more anxious a learner is about an examination, the more they are likely to exhibit low self-efficacy and, therefore, this can lead to poor academic performance. However, learners with high self-efficacy can result in better academic performance. It is notable that the negative relationship

between self-concept and anxiety can affect learners at all age groups particularly between early childhood and adolescence where learners are more than likely assessed using tests and examinations. There is a relationship between self-concept, self-esteem, and self-worth. High self-esteem increases academic performance and as a consequence there is a negative association between anxiety and self-esteem.

Writers such as Von de Embse et al. (2018) posit that there seem to be a consistent relationship between increased test anxiety and decreased levels of academic performance. However, Sommer and Arendasy (2014) argue that there is a negative relationship between test anxiety and academic performance which is largely as a result of selection bias. This is supported by other writers who conclude that after regulating their ability, increased levels of text anxiety is generally correlated with a minor reduction in test performance. While some researchers confirm the relationship between anxiety and academic performance, some research gaps still remain. Von de Embse et al. (2018), for example, posit that while it is confirmed that there is a negative relationship between anxiety and academic performance, the extent to which it is as a result of selection bias is limited, particularly when students who are less academically inclined are displaying higher levels of test anxiety.

Developing fear and anxiety during the examination period is arbitrary. However, what is significant is the learner's ability to overcome their fear and anxiety and not allow it to be a hindrance to their success. Thus, examinations or assessments determine how learners progress during their time at the learning institution. Moreover, a learner's promotion to the next term or semester would usually depend on the results of the final examinations for that period. Even though a learner may be adequately prepared for their examinations but lacks confidence and is

fearful, this can lead to poor academic performance. Therefore, to be successful in an examination it is critical that learners are confident and are able to overcome any fear and anxiety.

Guidance and Support Services

Guidance and support services have been established in schools to assist learners with life's challenges as well as to be responsible and productive members of society. Moreover, learners also need counselling and support services to help them to develop abilities such as assertiveness, negotiation, communication, coping with peer pressure, decision making, coping skills and development of attitudes such as self-esteem, compassion as well as tolerance and role modelling.

There is only one guidance counselor stationed at each of the nation's secondary schools in Saint Lucia. As such, they are faced with dealing with many issues which include, but are not limited to mental health concerns, disciplinary issues, parental concerns, and the overall wellbeing of learners. According to Kearney et al. (2021) due the fact that the ratio of students to guidance counsellor is so high they are unable to spend adequate time with students and as a result many of them are unable to receive pertinent support required to transition successfully into college thereby reducing their level of effectiveness in their role as guidance counsellors. This is even more important for students from lower socio-economic backgrounds in making better-informed decisions given their limited financial resources.

Guidance counsellors have often approached the SALCC and solicited the support of faculty to come and provide information to students at their respective secondary schools. There, learners are able to ask pertinent questions with reference to the offerings of the SALCC. Unfortunately, some of these students would have already selected their subjects to be pursued in the CSEC examinations and may not have chosen the requisite suite of subjects for their area of interest. Thus, these students become disadvantaged, for, while they would have been successful

at the CSEC examinations, they may not possess the suite of CSEC courses required for their area of interest. These students may have to sit additional CSEC examinations to fill the deficiency or may have to complete remedial courses at the SALCC which delays their entry into the SALCC because these courses run for a one-year duration. This is even more critical for students from low economic backgrounds who may not be able to make use of these avenues and therefore may decide not to pursue post-secondary level of education.

It is noteworthy that this type of guidance should be solicited and provided to students earlier so that they are in a better position to choose the requisite suite of courses for their area of interest. Thus, guidance counsellors from the nation's secondary schools should not solicit the assistance of the SALCC but rather, the SALCC should conduct annual school fairs so that students will receive information required for entry to the SALCC. Additionally, the SALCC should have annual programs for guidance counsellors to impart the same because it may lead to sustainable academic performance. The benefits of these two initiatives would prepare their pool of intake years ahead. If this is not done, students will remain unprepared for the academic rigor and courses offered and this can lead to students becoming frustrated, perform poorly, repeat courses, or even dropping out of school. However, if this is done sooner, students would have a better appreciation of the courses undertaken in their program of study because they would see their relevance to their chosen careers. This can lead to positive learning outcomes and sustainable academic performance.

College counselling and support is of equal importance for students once they have gained entry into post-secondary level educational institutions. Support services include but are not limited to orientation, enrollment, financial aid knowledge and fundamentals of job preparedness. College counselling services include but are not limited to dealing with issues such as mental health concerns and the overall wellbeing of students. At the SALCC, there are only two college

counsellors to 1800 students. The ratio is, admittedly, high, but many students shy away from visiting the counsellor because of a culture of mistrust. As such, when students are experiencing challenges, they are reluctant to visit the college counsellor. Therefore, some of these students do not seek the necessary support which can benefit them. While some students may be able to cope with their problems, others become overwhelmed and either engage in undesirable behaviors as a coping mechanism or may choose to drop out of school because of their poor performance.

There are many variables identified under school-based factors that will influence the academic performance of students either positively or negatively. For instance, while the relationship between teachers and students have been largely studied in the early years of a child's education, it has been much neglected at the post-secondary level of educational research. Thus, it must be considered a possible factor in determining the academic performance of students because of its impact on student retention, course satisfaction, learning approaches and success, and teacher quality and improvement. Moreover, the quality of teacher student relationship can influence the students' learning experiences. For instance, learners who have positive relationships with their teachers have an increased likelihood of positive attitudes, academic experiences, and higher grades. Conversely, students with conflicting relationships with their teachers can result in poor academic performance and the possibility of students repeating courses which comes at a cost to the students. Thus, students from low socio-economic backgrounds may not be able to afford the additional costs incurred and they may choose to drop out of school. It is critical to understand, therefore, not only the academic background of students but that, more importantly, the relationship between teachers and students can influence learners' academic outcome. The aim, therefore, is to manage the student-teacher relationships to achieve positive outcomes for both teachers and learners.

The process of transitioning into college can be long and arduous. According to Lombard (2020), students begin to have thoughts of academic aspirations and college awareness early and may select subjects that prepare them for the transition to college. Unfortunately, in the context of St. Lucia, it is not generally so. While some schools prepare students for the transition to post-secondary level of education as early as form 2, others commence at form 4. While some students choose their subjects in form 2, they do not receive the support or information needed to make an informed decision so that these courses are aligned with the program entry requirements of SALCC. Regrettably, some students who are required to choose their suite of subjects in form 4 are unable choose their subjects freely. Some students are disadvantaged because they may be directed to a pre-chosen stem of subjects which is not specific to the suite of subjects in the entry requirements for their program of study at the SALCC. These students are either forced to undertake remedial courses or complete the CSEC examination in an effort to meet the entry requirements for school which comes at a cost to the students.

The teaching methods or strategies used in class must be able to achieve the learning outcomes of the lesson or examination. Often, teachers assign blame to students who perform poorly at school but do not understand the reasons that render them so. It is notable that some teaching methods used by teachers are not in accordance with the learning styles of students which can hinder their ability to learn or understand the concepts taught. It is imperative to understand how students learn and identify and implement the appropriate teaching strategies/tools to suit their learning needs. Teachers must be engaged with the requisite tools and techniques in order to facilitate the diverse learning styles of learners, as this is paramount to academic performance.

The expectations that teachers have of their students will impact their academic performance. It is important that teachers manage their expectations properly as these expectations

can have both positive and negative impact on learners and, to a greater degree, to learners with low self-esteem. Once teachers develop expectations of learners, they convey them through their interactions with them.

Providing guidance and support to students is fundamental in the transitioning phase from secondary school to post-secondary school as some students may be faced with academic, social, and personal challenges. For instance, in homes with single parents, a lot of the support and guidance will be left to the school to do. In these cases, guidance counsellors will be left with the task of guiding those learners. In the St. Lucian context, the importance of those counsellors cannot be over emphasized. Additionally, it is essential to provide the necessary support to students in order to enable them to successfully prepare for their transition into post-secondary level of education and also to help them navigate and embrace their new learning environment. Further, it is essential for the SALCC to provide the necessary support to guidance counsellors in helping to familiarize themselves with the requirements for entry to the SALCC, so they are better equipped to advise in that regard. In society, there is a cultural mistrust, and it is important that guidance counsellors use creative and strategic ways to foster that relationship and trust of learners in their charges as the proper management of this relationship could help in developing good learners and citizens.

The performance assessment systems used in schools can either foster deep learning or surface learning. Moreover, the objective of performance assessment systems to assess the effectiveness of their teaching practices, allows for feedback to both teachers and learners to determine the extent to which learning outcomes have been achieved, thus providing documentary evidence and validation that meaningful learning has occurred. The assessment should be properly tailored to the current and future needs of learners. In this regard, it is important to implement best

practices in the subject areas so that the type of assessment used needs to be consistent as much as possible. Constant curriculum review needs to be undertaken to meet the ever-changing demands of the workforce. In as much as possible the curriculum should encourage self-regulatory learning, continuous assessments, and feedback, as the summative assessment could have an adverse impact on academic performance.

The impact of learning resources is significant. The absence of adequate resources such as Wi-Fi services, facilities, equipment, and updated plants can impact the academic performance of students negatively. The decreased annual subvention by the St. Lucian government has not been adequate in meeting the routine commitments of the SALCC to learners and faculty.

It would be most valuable to understand that school-based factors can influence students' academic performance. Therefore, not having an appreciation of these variables can be harmful to the students' safety not only in their change from secondary education to post-secondary education but also during their tenure at the college. Also impacted would be the students' future prospects for employment and retention.

Summary

The purpose of this study is to empirically explore the underlying school-based factors and student-based factors that contribute to the gaps and challenges for a significant number of learners, and the inability to sustain their academic performance from the secondary school level of education once admitted into the Sir Arthur Lewis Community College. To this end, various sources were used to gather the literature utilized in this study. These sources include, but are not limited to, Google Scholar, Semantic Scholar and Ebscohost. Some of the key terms used to gather pertinent information include but are not limited to academic performance, student ability, child development and academic performance, student-based factors and academic performance,

school-based factors and academic performance, self-regulatory learning strategies and learning resources, college transition and their impact on academic performance. The textbooks, articles and journals gathered for this study were published between 1981 and 2022. Thus, literature review covered eight diverse areas related to the factors which influence the academic performance of learners.

The first section of the review introduced the fundamental theories of academic performance. Wahlberg's (1981) Educational Productivity Theory forms the basis of this study as the theoretical framework used to explain the connection between the learning variables and learners' academic performance. Additionally, contributions by theorists such as Tinto's Integration Theory (Chrysikos et al., 2017), Spady's (1970) Sociological Theory, Bean's (1980) Psychological Theory, Deci and Ryan (2017) Self-Determination Theory (SDT) were also analyzed because these writers posit that there are variables which directly and indirectly influence the retention of learners. These variables include pre-college characteristics and attributes, prior schooling, family background, peer support, the students' level of satisfaction, and commitment to learning. Various models of transition theory were discussed and the most suitable model which could be used to provide guidance and support to learners will be identified.

Secondly, the researcher discussed the adaptation of the Wahlberg's (1981) Educational Productivity Model as the conceptual framework in this study to be able to identify the school-based and student-based factors which influence the sustainable academic performance of students at the Sir Arthur Lewis Community College. The next section examined the nature and concept of academic performance. In this section, the researcher identified cognitive and non-cognitive predictors which influence the academic performance of learners. The researcher also evaluated the effect of prior-academic performance of learners on academic performance. The ability of

learners was then examined with reference to their academic performance. In particular, the fundamental theories of human development were assessed in order to determine the relationship between child development and academic performance.

The next section of this review examined the student-based factors which can influence the academic performance of learners. These variables include but are not limited to gender, personality traits with particular reference to the Big Five Personality Model (BFPM) which includes discussions on conscientiousness, extraversion, agreeableness, openness to experiences and neuroticism. Other student-based variables include socio-economic status, attitudes, motivation, and goals. It is notable, from the writer's analysis, that these variables can either positively or negatively influence a learner's academic performance.

The impact of self-regulatory learning strategies was also evaluated to determine its impact on academic performance. The researcher also discussed the importance of developing self-regulatory learning strategies which can contribute to positive learning outcomes at the tertiary level of education.

The next segment of this review assessed the importance of learning resources and academic performance. The impact of learning resources was discussed from the perspectives of both school-based and student-based resources to determine the positive and negative impacts on academic performance.

The section following examined the institution-based factors which can influence the academic performance of learners. The variables include but are not limited to teacher-student interaction, instructional strategies, teacher expectations, relevance of the curriculum, performance assessment systems, guidance, and support services as well as infrastructure which has been

addressed. It is noteworthy, from the researcher's analogy, that these variables can influence a learner's academic performance either positively or adversely.

For this study, sustainable academic performance was defined as one's ability to maintain the same or better academic performance once the individual has transitioned into the post-secondary level educational institution, particularly the SALCC. While reviewing different models, Wahlberg's (1981) Model of Educational Productivity best facilitated the study currently undertaken. While the literature above has revealed a greater significance on the learner rather than the teacher as fundamental to the learning process at the post-secondary level of education, the emphasis is placed on the teacher at the secondary level of education in the learning process. At the post-secondary level, a more active approach to learning is recommended which includes the use of metacognitive skills and self-regulatory learning strategies. This does not negate the fact that there are other student-based factors and school-based factors that would impact the academic performance of students at the tertiary level but rather there is a need to comprehend the extent to which they contribute to the academic performance of learners, thus the rationale behind the supporting literature on both student-based and school-based factors on the academic performance of students. Various studies also reveal that there are both direct and indirect effects of the same on the academic performance of learners but do not address those factors that contribute to the sustainable academic performance of learners' post-secondary school.

The current study considers that there are school and student-based factors on the sustainable academic performance at the Sir Arthur Lewis Community College, Saint Lucia. The results of this study are expected to contribute models that best represent the data derived from the SALCC, thus enabling the most suitable recommendations to be made on how to ensure the sustainability

of the academic performance of learners while providing a foundation for further research in other post-secondary educational institutions in Saint Lucia.

CHAPTER 3: RESEARCH METHOD

The previous chapter examined the literature impacting the study. This chapter describes the research approach and design, presents the population and sample of the study, discusses the materials used, the research tools, procedures, and ethical assurances for the study. Further the chapter identifies the data collection process and concludes with a summary of the various methodological approaches utilized in the study. The chapter begins with the research approach and design following this brief introduction.

Research Approach and Design

Research Approach

The selection of the appropriate research approach is determined by the purpose of the study which is to identify the student and school-based factors impacting the sustainable academic performance of students at the SALCC. Furthermore, the research problem investigated determines the technique used to collect primary data. In this regard, the concept of a pragmatism approach which considers making the best decisions to achieve the most desired result is determined as an initial feasible philosophical approach. Thus, as a fundamental principle for this research, pragmatism reinforces the need to choose between diverse research approaches for the investigation. Further, the research questions put forward in this study necessitates determination of methods which are the most appropriate to gain validity of results (Maarouf, 2019). Moreover, the pragmatism paradigm also reinforces the need to gain diverse perspectives towards the research problem at hand, while allowing the research to be relevant to key stakeholders who would benefit from the variety of issues addressed by the study. In order to accomplish this relevancy, awareness

is required regarding the advantages and constraints of individual research methods and the necessity of using the most suitable ones to address issues of interest.

For example, this study necessitates the use of statistical evidence and utilizes quantitative research in part. From an ontological standpoint, quantitative data is best validated by quantitative methods. Additionally, in contrast from a phenomenological standpoint which requires deeper subjective insights as some of the data requirements of this study the utility of qualitative approaches are best engaged. Thus, the pragmatic approach finds most suitability for this study.

Additionally, because this research is multifaceted and complex, it benefits from utilizing quantitative research methods to gather new insights. Thus, to be able to comprehend the underlying factors which contribute to the sustainable academic performance at the SALCC, the study collects data from varied sources, namely, lecturers of the SALCC, students (past and current) of the SALCC, employer representatives, secondary school teachers, staff of the Students' Services Unit as well as guidance counsellors, to provide a comprehensive perspective of the situation at hand. Thus, for this study, questionnaires and an observational schedule using close-ended questions provides statistical descriptions and helps to establish relationships between the data.

By isolating the variables, the researcher analyses the data to determine the significance and frequency of relationships. Analyzing the data, however, is time-consuming because it requires the analysis of large amounts of data. Additionally, the focus on statistical evidence may result in a failure to notice more significant themes and relationships that may be beneficial to the study. In this instance, the researcher ensures that themes are based on the research questions posed and objectives stated. Moreover, the researcher's subjectivity can influence the methods used to gather quantitative data thereby leading to researcher bias. In this study, the researcher ensures that there

is no researcher bias in the methods that are used to gather data for this study by exploring diverse methods of data collection and selecting the most appropriate for the research.

However, since the purpose of the investigation necessitated additional information to better comprehend the research problem, qualitative research proved useful. “Qualitative research takes interpretivism and constructivism perspectives, both originated within the idealist standpoint” (Slevitch, 2011, p.76). It is founded on one’s own understanding of realism by contributing differing points of view of the research. The truth is founded, therefore, on the respondents’ general examination of the circumstances based on their realities which impacts the level of reliability of the data. Consequently, in these situations, this renders the sample size insignificant. “The significance is on elaborate explanations of the phenomenon through meanings, evaluations, procedures, and situations” (Slevitch, 2011, p.77) thus providing a better understanding of the situation investigated. Additionally, several sources of information provides a better comprehension of the present problem.

However, having different points of view can be a constraint because it is challenging to generalize the results and arrive at a conclusion. Gathering qualitative data is primarily biased in its methodology, as it seeks to understand human behavior and the reasons for such behavior. Unfortunately, researchers are likely to become emotionally caught up in the topic at hand as discussed by Rutberg and Bouikidis (2018, p. 211). Qualitative research designs include, but are not limited to, case studies, observations, interviews, ethnographies, grounded theory, historical research and focus groups. Mack et al. (2005) posit that the disparity between qualitative research and quantitative approach is founded on their analytical objectives, the variety of questions asked, the diverse data collection tools they implement, the kind of data outcomes and the level of flexibility implemented in the research design. These factors are investigated below.

This study is a case study utilizing the mixed methods research approach. Mixed methods research has been defined as a philosophically underpinned framework of inquiry integrating qualitative and quantitative models of enquiry so that results may be mixed, and knowledge is increased fundamentally than either model could achieve alone (Creswell & Clark (2007, as cited in Lee, 2019). From an epistemological perspective the researcher utilizes both qualitative and quantitative data. From a positivist epistemological perspective, the researcher utilizes quantitative data allowing the researcher to determine the causal relationship between the independent and dependent variable. From a constructivist epistemological perspective, the researcher utilizes qualitative data to document and understand the perspectives of participants. In this instance, the constructivist epistemological perspective allows the researcher to gather data that would validate the responses from the quantitative data. Ontology involves investigating what influences the sustainable academic performance of students at the SALCC.

Thus, the researcher categorizes the influential variables into school-based factors and student-based factors. This approach is the most suitable for addressing the research aims of this study, particularly since there is no evidence of any study being conducted at the SALCC with reference to investigating the school and student-based factors on sustainable academic performance of students and, thus, this mixed methods research approach allows for rich conceptualization of the school-based and student-based factors, testing for significant relationships on sustainable academic performance.

The weighting decision in mixed methods research can be distributed either evenly or unequally (Creswell & Clark (2007, as cited in Lee, 2019). For this study, equal emphasis is not placed on the qualitative and quantitative data but rather the study relies on theoretical and practical considerations to structure the design explicitly in order to manage the dominance of one method

over the other. Thus, for this study, the dominance of qualitative data has the advantage of facilitating the collection of rich data by allowing respondents to express their experiences with regard to the research problem. Additionally, ontological variances between quantitative and qualitative methods are bridged. This is accomplished by matching statistical relationships found in quantitative data with subjective in-depth explanations and descriptions obtained through qualitative data, allowing the researcher to make inferences with conviction.

Research Design

Developing a research design is important because it provides a blueprint which dictates the scope of the investigation in order to accomplish the research objectives. For this study, a case study research design is used. A case study research design involves investigating a problem within a real-life context (Priya, 2021). In this case, some students who have gained acceptance into the Sir Arthur Lewis Community College are of the misconception that because they have met the entry requirements for study at the post-secondary level, they are prepared for college level work. While some students have been successful at transitioning from secondary to post-secondary level of education, others are unprepared for the adjustments required to function at that level and, therefore, the institution continues to witness a decline in academic performance. The purpose of this research, therefore, was to empirically explore the underlying factors which contribute to the gaps and challenges for a significant number of students to sustain their academic performance at the SALCC, so that the appropriate interventions and strategies is implemented to help to alleviate the research problem at hand. Additionally, the researcher is able to identify and understand the implications of the results of the research and offer appropriate solutions to the problem.

A key feature in utilizing a case study research design is the use of varied forms of data collection to get diverse perspectives about the problem (Priya, 2021). Employing the use of the

case study research design in this investigation allows the researcher to gain contextual and in-depth knowledge about the research problem by utilizing diverse forms of data collection which includes, but are not limited to, questionnaires, interviews, observations, and document analysis. Additionally, the research design is selected on the premise that it allows the researcher to study and gather data from a sample of diverse participants which included current students, graduates, lecturers, secondary school teachers, guidance counsellors and employers who provided their own perspectives about the problem. By allowing respondents an opportunity to provide their own perspectives, each data source, therefore, contributed to the holistic understanding of the research problem. The researcher is then able to triangulate the data to provide better insights into the research problem which also contributed to the trustworthiness of the study.

Moreover, case studies lend themselves to the use of the stratified sampling technique with a minimum samples size of 100 participants and maximum sample size of 1,000 participants. For this study, the stratified sampling technique is used to select the sample participants for this study which comprised of 180 current students from the departments of Technical Education and Management Studies (DTEMS), Arts, Science and General Studies (DASGS) as well as Agriculture (DAGRI) who are the primary group under investigation and 759 participants which included graduates, lecturers, secondary school teachers, guidance counsellors and employers for qualitative data collection, both being within the range of acceptable sample sizes for a case study.

A good case study provides new insights into the research problem, challenge existing theories and assumptions, introduce practical solutions to the research problem as well as create or identify opportunities for future research. There are many research methods which can be utilized when collecting data, namely: qualitative data which is primarily used, quantitative data or a mixed method approach. According to Maarouf (2019), it is beneficial in the areas of

psychology, education, business research and sociology by utilizing multiple methods of data collection. Thus, a mixture of methods leads to more profound insights into distinct situations, as compared to utilizing either qualitative or quantitative methods by which one cannot completely understand the research problem. However, there must be a specific distinction to justify the basis for blending qualitative and quantitative methods or alternative designs, evaluation techniques and appropriate situations for each objective (Creswell & Clark, 2007, as cited in Lee, 2019). Thus, for this study, the design consists of asking questions of respondents using both qualitative and quantitative data in order to collect information for the research problem. It is with this in mind that the researcher utilizes questionnaires, observational schedule, and an interview protocol, thus providing the researcher with an opportunity to collect information from different angles to understand the school-based and student-based factors on sustainable academic performance of students at the SALCC.

The interview is primarily used to collect data by asking respondents a series of questions. It is a qualitative form of data collection which can comprise of two or more people, one being the interviewer. Interviews can either be structured, unstructured or semi structured. Conducting a semi-structured interview in this instance allows the researcher to gather rich data and draw detailed conclusions about the research problem. However, some limitations of interviews include, but are not limited to, being time consuming and challenging to execute properly. Additionally, having a smaller sample size can delineate the validity and reliability of the data. While in this instance, the sample size for the interview was small, the researcher ensured that careful planning went into developing the questions for the interview that so that meaningful insights to be drawn. Additionally, the interview was pilot tested to identify any potential discrepancies which may arise, and corrective action taken to ensure that the questions measured what they intended to measure.

Moreover, because multiple methods of data collection was utilized, the researcher was able to triangulate the results to strengthen the reliability of the data. Finally, the interviewer refrained from asking leading questions which may cause researcher bias. For this study, the researcher ensured that researcher bias was eliminated by focusing on the questions that were provided in the questionnaire in order to obtain the perspective of the participant in this study.

An Observational schedule is used in this study to capture authentic classroom practices, teacher-student relationships, teaching skills as well as student behaviour in the classroom. It is usually conducted by a non-participating observer to gather data. Limitations to observation schedules include, but are not limited to, the possibility that it may cause researcher bias if the researcher becomes too involved, or that the participants may change their behaviour because they know that they are being observed. In this instance, the researcher ensured that the observational schedule was piloted to ensure that any ambiguities or challenges encountered during this phase was addressed. Moreover, the findings from the observational schedule were triangulated with other data derived from other data collection methods used in this investigation to enhance the reliability of the study.

Questionnaires are used to capture primary data from respondents. The questionnaires allowed the researcher to gather reliable data in a systematic way by asking pertinent questions, gathering, and analyzing the data to make decisions with respect to the research problem and objectives. The advantages of questionnaires include, but are limited to, the provision of first-hand information that is reliable, exclusive, applicable, and accurate. Secondly, questionnaires are a flexible form of data collection since data can be collected via a diverse set of media which includes, but not limited to, online questionnaires, email, mobile, in person and social media. It is cost-effective particularly if the researcher is utilizing online questionnaires. In this instance online

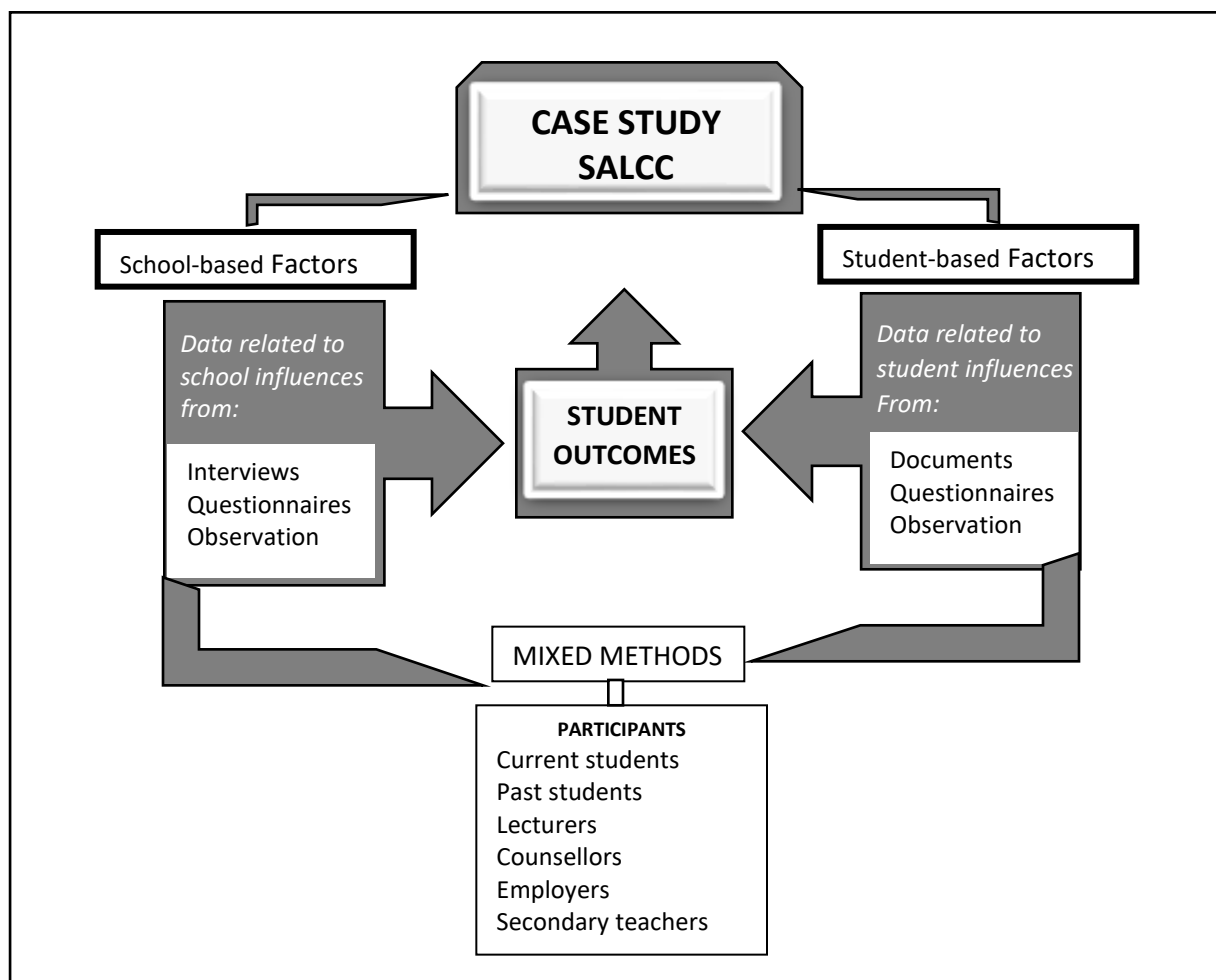
questionnaires and in person questionnaires are used. Thirdly, questionnaires have a wider reach, particularly when utilizing electronic media to distribute the questionnaires via email, social media, short message services (SMS) or quick response codes (QR code). In this instance, due to the impacts of the Covid19 pandemic and the associated protocols the researcher benefited from the use of the WhatsApp messaging platform to distribute the online questionnaires. In doing so, the researcher shared a link with participants which they used to complete the online questionnaire.

Through the use of electronic means respondents were able to remain anonymous, maximizing their need to be comfortable to participate in the research. Lastly, questionnaires allowed the researcher to gather data from multiple sources at once. In this instance, the researcher was able to gather data from current students, graduates and lecturers of the SALCC, employer participants of the SALCC internship program as well as teachers and guidance counsellors from the nation's secondary school system. There are, however, limitations to utilizing questionnaires. They include, but are not limited to, the possibility that respondents can provide dishonest answers to the questions in the questionnaire, respondents may not answer all the questions in the questionnaire, respondents may have a difference in opinion when interpreting the questions in the questionnaire and it may be difficult to group the data into assigned themes and codes. In the case of this research for instance, questions which were not answered in this study were not included in the final analysis. To overcome these challenges, the surveys were pilot tested to identify any potential issues with the questionnaire. Moreover, the researcher ensured that the questions provided were concise, clear, and easily understood by the participants. Additionally, the researcher refrained from using any leading questions which would introduce researcher bias in this investigation. Also, preassigned themes were used to group the data for ease of analysis.

The research design for this study also allows the researcher to examine the situation under scrutiny without influencing it or modifying it in any way. Additionally, the research design chosen also allows the researcher to utilize other methods like document analysis from information gathered from the literature review to verify findings. The diagram below exhibits the research design utilized in this study.

Figure 3.1

Research Design



Steps in the Research Design

Yin (2003, as cited in Lee, 2019) puts forward five components of research that are critical for the success of a case study research design. These five steps are used in this study to outline

the process used to gather the data for this research. The steps include identifying the research questions, propositions, describing the units of analysis, identifying the logic linking the data to propositions, and describing the criteria used to interpret the results.

Research Questions

To accomplish this study, the following research questions are explored:

- What are the student-based factors that determine the sustainable academic performance of students at the Sir Arthur Lewis Community College in Saint Lucia?
- What are the school-based factors that determine the sustainable academic performance of students at the Sir Arthur Lewis Community College in Saint Lucia?
- To what extent do student-based factors influence the sustainable academic performance of students at the Sir Arthur Lewis Community College?
- To what extent do school-based factors influence the sustainable academic performance of students at the Sir Arthur Lewis Community College?

Propositions

The study proposes that there are student and school-based factors that influence the sustainable academic performance of students at the SALCC. The study also that the extent of the influence of the student and school-based factors on sustainable academic performance of students vary.

Units of Analysis

A case study design allowed the writer to gain different perspectives of participants using three different methods to gather data which include questionnaires, an observational schedule, and an interview, which facilitated the researcher to eliciting the views from a sample of informants. The following participants were selected to participate in this study because they are

all affiliated with the SALCC and are considered as people who would make a meaningful and significant contribution to this study.

- **Students and Lecturers.** To identify the student-based and school-based factors which influence the sustainable academic performance of students at the SALCC.
- **Staff of the Students Services Unit.** To identify the systems that are currently employed by the SALCC to assist students with college life.
- **Guidance Counsellors of the Various Secondary Schools in Saint Lucia.** To identify the systems that are currently employed at the secondary school level in preparing students for post-secondary level education and the issues highlighted by students in preparing for post-secondary level education.
- **Employers.** To identify the issues, if any, for graduates and students during internship and employment at post-graduation.
- **Secondary School Teachers.** To obtain their feedback on the curriculum and assess the effectiveness of their teaching practices in preparing students for post-secondary education.
- **Graduates.** To identify the factors which influenced their academic performance, the challenges encountered and the impact of their experience in the world of work.

The three forms of data collection utilized, allowed the data gathered to be evaluated, patterns to be observed as well as comparisons from the data, in order to explain the reasons for the students' inability to sustain their academic performance once they have gained entry to the Sir Arthur Lewis Community College (SALCC). It is noted that these methods of data collection were pilot tested to determine their validity and reliability.

Logic Linking Data to Propositions

The data gathered for this investigation is analyzed utilizing correlation analysis, regression analysis and descriptive statistical analysis to answer the research questions. All qualitative questions are subjected to qualitative thematic analysis which is used to validate the findings from the quantitative data gathered.

Criteria used to Interpret the Results

In order to interpret the findings, Walberg's Educational Productivity Theory was tested and identified as the most suitable framework on which to base the study. This theory allowed the researcher the latitude of exploring a wide range of independent and dependent variables in order to identify the most common variables from the data collected that would influence sustainable academic performance at the SALCC.

Population and Sample of the Research Study

The population for this study comprises of 8,007 participants. The sample size for this study was determined by Cohen, Manion and Morrison's (2007) projections based on the population at 99% confidence level using random sampling, thus providing a high-level of certainty that results drawn from the data are reliable and are representative of the population under study. Based on the random sample size projections on 8,007 population, 939 participants were examined for this study. The sample size includes 180 current students utilized for statistical analysis, 709 past students, 11 lecturers, 1 staff of the SALCC Students Services Unit, 30 secondary school teachers, 3 guidance counsellors, and 5 employers of past students were utilized for qualitative analysis. To further justify the sample size, stratified sampling utilizing proportional sampling techniques were adopted to determine percentage representation of the various groups of participants that made up the population thus increasing the accuracy and

reliability of results while reducing bias and ensuring that each sample is adequately represented. Specifically, in the case of the proportional representative sample, the confidence rating was at 95%. Hence, the breakdown is given as follows:

Table 3.1

Sample Size of Population

Participants	Population Size	Estimated % Representative Sample in the Population	Sample Size Represented
Students	748	19.2	180
Lecturers	91	1.13	11
Students' Services Unit (SSU)	9	0.11	1
Guidance Counsellors	25	0.31	3
Employers	44	0.55	5
Secondary School Teachers	2000	3.2	30
Graduates (2015-2019)	<u>6049</u>	<u>75.5</u>	<u>709</u>
TOTAL	<u>8007</u>	<u>100</u>	<u>939</u>

Note. *180 current students (statistical analysis).

Note. *709 past students, 11 lecturers, 1 staff of the SALCC Students Services Unit, 30 secondary school teachers, 3 guidance counsellors, and 5 employers of past students (qualitative analysis).

It should be noted that the design criteria for this research is case study, and, accordingly, utilized both qualitative and quantitative data. As such, both probability and non-probability sampling methods are utilized to select participants for this study.

Non-probability Sampling

Non-probability sampling, which is utilized in qualitative research, allows the researcher to select participants non-randomly based on convenience or other criteria, facilitating the ease of data collection. However, not everyone in the sample has an equal opportunity of being chosen. For this study, the types of non-probability sampling methods that were utilized were purposive sampling and convenience sampling.

Purposive sampling is the conscious selection of a participant based on the individual's characteristics. It is also referred to as judgment sampling (Bhardwaj, 2019). It is based on prior knowledge of the sampling unit and the particular purpose of the research, where the investigator's judgment is made by choosing the sample that will produce the data required (Bhardwaj, 2019). Thus, in this instance the sample selected were individuals who are affiliated with the SALCC and are considered as people who can make a meaningful and significant contribution to this study.

This method of purposive sampling is useful if the sample unit is small, especially when the aim is to select cases that are informative to the research topic chosen. Moreover, making use of purposive sampling for this study allowed the extrapolation and provision of credible explanations from the data collected since the data was obtained from three different sources. Because it is a method of non-probability sampling, it is impossible to calculate sampling error. Therefore, the researcher ensured that a broad enough sample was chosen to reduce the incidence of sampling error. Accordingly, it is the opinion of the researcher that this sampling method was applicable and most suitable for the current study.

For this study, convenience sampling is used because it facilitates the selection of a sample of participants who are willing and available to be involved in the study. This method, however,

left the investigation open to sample bias. The study, therefore, used measures such as controlled samples to eliminate sources of bias and maximize the generalizability of the results.

Probability Sampling

The probability sampling method, which is used mainly for quantitative research, allows the research to be precise about the relationship between the sample and the population. Probability sampling uses sampling approaches depending on statistical hypothesis to examine variables and factors defining the chosen sample. As previously stated, probability sampling provides members with an equal opportunity of being chosen for the investigation at hand. With this, it allows the researcher to make statistical deductions from the results of the sample to the selected population. A sampling frame is suitably extracted from the sampling unit in order to focus on the research problem. Then only, can numerical inferences be made to the actual population described by the sampling frame. In other words, the more characteristic the sample is of the population, the more authentic the statistical conclusions are from the segment to the population of interest. However, when a chosen segment is not typical of the population, it can result in sampling bias. This means that the approach utilized to arrive at the sample's members tends to prefer one portion of the population than the other.

Additionally, sampling bias can also be a result of under coverage, which occurs when the proportion of one segment of the population is more reduced in a sample than it should be in the population. Under coverage, is evident when the frame which is utilized to derive at the sample is deficient or not typical of the population. Some frames, for example an official voter list, may appear to be simple to acquire; however, even this frame may be insufficient since people who were newly registered to vote may not be incorporated on the published list of registered voters. Moreover, voters could be biased towards another political affiliation, and this may lead to an

inaccurate account of possible voters to a particular political party. Thus, sampling bias can lead to incorrect predictions. In the case of this study under coverage was eliminated since the participant groups were readily available via the college's database.

Due to the repetition of the items used in pilot of the study the respondents may experience a type of priming effect since they may be familiar with items which may have an impact on the responses they give. This tendency is referred to as response bias. One cannot ensure that there are no differences in extraneous circumstances such as attitude change having occurred. This could result in a change in the responses provided. Additionally, when participants respond to a set of test items, the score obtained represents only a small portion of behaviour. Consequently, changes in scores may be due to some attribute of the participant which may lead to measurement bias. These kinds of errors will delineate the authenticity and reliability of the instrument and the test scores. In this instance it was the investigators' obligation to ensure high stability and authenticity of the results by ensuring that appropriate strategies were implemented to reduce response bias.

Nonresponse bias exists when participants that are chosen to be in the sample and who do not respond to the survey have differing opinions from those who do. Nonresponse can occur because individuals selected for the sample do not wish to respond or the interviewer was unable to contact them. This can be a consequence that the sample population does not trust the researcher and, thereby, will not provide accurate information or may not respond at all. In the case of this study the researcher followed up with participants reminding them to participate in the study. In doing so the researcher was able to strengthen the participation in the study.

In some investigative scenarios, non-probability sampling does not guarantee that the sample chosen is based on random selection. It is based on the researcher's judgment, and there is

a chance of bias in sample selection which can distort the findings of the study. Notwithstanding this criticism, this sampling approach was used because of its practicality. It is time saving and inexpensive. Moreover, it was a practical choice given the spread and attributes of the population. In this instance participants selected to participate in this study were all affiliated with the SALCC and are considered as people who would make a meaningful and significant contribution to this study.

The type of probability sampling used in this study was stratified random sampling. Stratified random sampling allowed the researcher to randomly select participants from each population in the study who share similar characteristics. Moreover, stratified random sampling ensures a high level of representation of the strata in the population. However, this sampling method is tedious and time-consuming. For the purpose of this study, there are three strata of lecturers and students, which included the Department of Agriculture (DAGRI), Technical Education and Management Studies (DTEMS) and Arts, Science and General Studies (DASGS).

Selection of the most suitable sampling approach for this study necessitated a comprehension of the benefits and limitations of probability and non-probability sampling. The main disparity between non-probability and probability sampling is their basis; probability takes an objective approach since it depends on numerical statistics whereas non-probability is subjective since it depends on the outcome of the level to which the sample is typical of the whole population. To be effective, the research problem is clearly stated as well as the expected outcomes of the study. If the research problem is poorly stated this will result in the investigator not being clear as to the purpose of the investigation and, consequently, deem the findings of the research invalid. Moreover, the identification of the most appropriate research approach also has an impact on the sampling method used. In this instance the study used a mixed-method research approach

which allowed for an integration of both qualitative and quantitative data collection methods. Thus, the sampling methods in this case were influenced by the research question, research objectives and the research design. Finally, the researcher was cognizant that selecting the most suitable sampling approach ensured the validity of the results of the investigation at hand.

Sample Description

Students

A sample of 180 current students from the Department of Technical Education and Management Studies (DTEMS), Agriculture (DAGRI) and Arts, Science and General Studies (DASGS) out of a population of 748 current students are surveyed to discuss the student-based and school-based factors which contribute to their ability or inability to sustain their academic performance at SALCC. The sampling methods used to choose the current students for this study were purposive sampling and stratified random sampling. The students in the sample are male and female within the age range of 16-45 with both high and low cognitive development and are from both the perceived low-performance and high-performance secondary schools on the island.

Graduates

The sample of 709 graduates out of a population of 8049 graduates between 2015-2019 are surveyed to discuss their level of preparedness for study at the SALCC, the challenges encountered and the impact of their experience in the world of work. Convenience sampling, stratified sampling and purposive sampling are utilized to select past students for this study. The students in the sample are male and female within the age range of 16-45 with both high and low cognitive development who performed either satisfactorily or unsatisfactorily on internship and have completed their course of study during the past five-year period. To guarantee the validity of the research, data

from a five-year period is used to select students who have performed satisfactorily and unsatisfactorily, to determine the underlying causes of their respective performance.

Lecturers

The researcher conducted a survey with a sample of 11 lecturers out of a population of 91 lecturers from the Department of Technical, Education and Management Studies (DTEMS), Agriculture (DAGRI) and Arts, Science and General Studies (DASGS). The sampling methods employed to select lecturers for this study were purposive sampling and stratified random sampling. The lecturers' population was included since they are familiar with the students and are expected to provide an understanding into the trends in students' performance. The lecturers in the sample are male and female within the age-range of 24-62, employed at the Sir Arthur Lewis Community College with more than five years' experience, possess at least a bachelor's degree in their area of study and may, or may not, have possessed a certificate in teacher education.

Employer/Business Representatives

A sample of 5 employer/business representatives out of a population of 44 employer/business representatives who participated in the Sir Arthur Lewis Community College's internship program were surveyed to discuss the issues or challenges, if any, for graduates and students during internship and employment, post-graduation. The sampling method utilized to select employer/business representatives for this study was purposive sampling. The employer/business representatives in the sample are male or female, having participated in the Sir Arthur Lewis Community College internship program over the last five years. They have direct contact with students under their care and were willing to provide a comprehensive assessment of them during their internship.

Guidance Counsellors

A sample of 3 guidance counsellors out of a population 25 guidance counsellors were selected to discuss/assess what is done, if anything, at the secondary schools to prepare students for post-secondary level education. The sampling methods employed to select guidance counsellors for this study were purposive sampling and stratified random sampling. These guidance counsellors, in the sample, are male and female within the age range of 25-60, who would have been employed within the nation's secondary education school system within the past five years. They possess at least a bachelor's degree in their area of study and are involved in student affairs and the preparation of students transitioning into post-secondary education.

Secondary School Teachers

An observation schedule was prepared for a sample of 30 secondary school teachers from a sample of 2000 secondary school teachers nationwide at the form 5 level of the nation's secondary schools. The sampling methods employed to select teachers for this study were purposive sampling and stratified random sampling. These teachers were also surveyed to obtain their input on the curriculum, and to assess the effectiveness of their teaching methods in preparing students for post-secondary education. The lessons observed were focused on a cross-section of subjects which are part of the suite of subjects which are the entry requirements for study at the Sir Arthur Lewis Community College.

The aim of the observation exercise was to assess the teaching methods employed by teachers at the secondary school level. The teachers in the sample are male and female within the age range of 21-62 and employed within the nation's secondary education school system within the past five years and are teachers of form 5 students. They possess at least a bachelor's degree in their area of study and may, or may not, have possessed a certificate in teacher education. They

were drawn from the following disciplines: English, Mathematics, Science, Foreign Languages, Social Studies, Business Studies, Engineering, Information Technology, Food and Nutrition and Agricultural Science.

Staff of the Students Services Unit (SSU)

An interview was also conducted with 1 staff member from a population of 9 staff members of the Students Services Unit (SSU) to discuss the systems, if any, that are employed at the time by the SALCC to assist students with college life. The sampling method applied to select staff members of the SSU, for this research, was purposive sampling. The participant from the SSU in the sample can either be male or female within the age range of 21-62, who would have been employed at the Sir Arthur Lewis Community College within the past five years. They would have possessed at least an Associate Degree in their area of study and would have been involved in student affairs at the Sir Arthur Lewis Community College.

Document Analysis

A document analysis was conducted from the internal annual academic reports which were received from the Department of Arts Science and General Studies (DASGS), Agriculture (DAGRI) and Technical Education and Management Studies (DTEMS) over the past five years. This was used to identify the number of students enrolled, sitting examinations, passing examinations as well as on probation for each academic year per semester. The sampling methods used to conduct the document analysis for this study were purposive sampling and convenience sampling. Additionally, the results of current students who completed the CSEC examination are also compared to their current academic performance at the SALCC to determine the trend in their academic performance. The sampling methods used to conduct this document analysis were purposive and stratified random sampling.

Recruitment of Participants

Participants for this study are identified, approached, and recruited as follows:

Current Students, Lecturers and Staff of the Students Services Unit

Permission was obtained from the Vice Principal of the Sir Arthur Lewis Community College responsible for academic matters in order to recruit students, faculty, and staff to participate in the study. Once approval was granted, letters of invitation to participate and consent forms were given to participants outlining the reasons for choosing them to take part in the study and obtaining their consent.

Secondary School Teachers and Guidance Counsellors

The Ministry of Education charged with the responsibility of the nation's secondary schools, through the office of Chief Education Officer, was written to, seeking approval to recruit guidance counsellors and form 5 secondary school teachers to participate in this study. Once permission was granted, letters of invitation to participate and consent forms were issued to guidance counsellors and teachers.

Employer/Business Representatives

Permission was obtained from employer/business establishments for access to their employer/business representatives. Letters of invitation to participate and consent forms were issued to the Human Resource Managers of the five major employers/business representatives participating in the SALCC internship program.

Graduates

Letters of invitation to participate and consent forms were issued to graduates of the SALCC soliciting their participation, outlining the reason for choosing them and obtaining their consent.

Materials/Instrumentation of Research Tools

Primary and secondary data are utilized in this study. The primary data were directly captured from the students, lecturers, guidance counsellors, employers, secondary school teachers and graduates by means of a questionnaire and staff of the students' services unit by means of an interview protocol. Primary data was also collected from secondary school teachers through the use of an observational schedule. The secondary data was derived from the SALCC academic reports.

Primary Data

Owing to the large size of the sample and the perceived sensitivity of the data being offered by respondents, a questionnaire is the primary data collection tool for the study. Other forms of data collection include an interview protocol and an observational schedule. The data collection tools comprised of items that dealt with the respondents' demographic data as well as items which allowed them to express their views, opinions, and experiences.

Research Instruments

Students Questionnaire

The questionnaire consists of a total of twenty-one (21) questions. These questions comprise of seven (7) open-ended and fourteen (14) closed-ended questions. The open-ended questions allows respondents to share their views, opinions and experiences based on the question item posed. A breakdown of the questionnaire was as follows:

Demographic Data

- What gender do you identify with?
- What is your age?
- Please indicate the secondary school which you last attended.

- Please indicate your program of study at the SALCC.
- What is your year of study? [Please indicate either 1st, 2nd, or 3rd year]

Student-based Factors

Student-based factors are measured using five variables: motivation and academic performance; learner's ability and academic performance; student-engagement and academic performance; the importance of learning resources and academic performance; as well as self-regulatory learning strategies and academic performance. The test items were as follows:

Motivation and academic performance

- Why was this program of study selected?

Learner's Ability and Academic Performance

- How would you rate your ability to adjust from secondary school to the SALCC?
- Please identify the major challenges which contribute to this experience?

Student Engagement and Academic Performance

- Do you think that the number of contact hours for class is adequate?
- How comfortable are you working in a group?
- Do you attend class regularly?
- If not, provide reasons for your absenteeism.
- How comfortable are you working on your own?

The Importance of Learning Resources and Academic Performance

- Were you able to access the required textbooks/reading materials for class?

- If not, please identify what impact, if any, the absence of these had on your academic performance?

Self-Regulatory Learning Strategies and Academic Performance

- How often were you able to complete assignments on time?
- Are you able to keep-up with the demands of your program? If not, why?
- Were you able to access support from the Sir Arthur Lewis Community College to assist you in helping to address the challenges highlighted above?

School-based Factors

School-based factors were measured using one variable: institutional factors and academic performance. The test items included:

Teacher-student Interaction

- How would you describe your class interaction with your teacher?
- If there is no interaction, please explain.
- What is the average ratio of students to a teacher in your classes?
- What impact, if any, does this ratio have on your learning experience?

Institutional Factors and Academic Performance

- How would you rate the classroom facilities?
- Please identify the major challenges which contributed to this experience?
- New School Environment.
- Heavy Workload.

- Lack of Resources.
- Your expectations of your teachers.
- Your expectations of the Sir Arthur Lewis Community College in meeting your needs.
- Teacher-student interaction (teacher attitude, student-teacher ratio).
- Instructional methods/strategies.
- The change in teaching methods and practices.
- The teacher's expectations of you.

Lecturer Questionnaire

The questionnaire consists of a total of twenty-two (22) questions. These questions comprise of seven (7) open-ended and fifteen (15) closed-ended questions. The open-ended questions allows respondents to share their views, opinions and experiences based on the question item posed. A breakdown of the questionnaire was as follows:

Demographic Data

- What gender do you identify with?
- How long have you been a lecturer?
- What is your subject area of specialization?
- What level of education have you completed?

Student-based Factors

Student-based factors are measured using three variables: motivation and academic performance; learner's ability and academic performance; and student-engagement and academic performance. The test items included:

Learner's Ability and Academic Performance

- Are you satisfied with the students' entry level academic qualifications? If not, why?

- Do you think that the students are prepared for the internship program?
- If not, please explain.
- What is your experience with students being accepted annually into the Sir Arthur Lewis Community College?
- Do you think that they are prepared for college level work? If not, why?
- What are some of the identified common issues or challenges confronting students entering the SALCC from secondary schools?

Student-Engagement and Academic Performance

- How prepared are students for class?
- What percentage of students presented their assignments on time and met deadlines?
- How prepared are they for group work?

School-based Factors

School-based factors are measured using three variables: institutional factors and academic performance, performance assessment systems and guidance and support. The test items included:

Institutional Factors and Academic Performance

- Are there any issues with the class size in terms of the student to teacher ratio? If yes,
- please explain.
- Do you have any issues with classroom location and infrastructure in terms of:
- lighting, layout, size, location, air circulation, visual aids?

Performance Assessment Systems

- Are you satisfied with the established academic performance assessment systems? If not, please explain.

- What changes, if any, would you recommend?
- Do you think that the entry requirements of the College are acceptable? If yes, why? If not, why?

Guidance and Support

- Are you satisfied with the support and assistance given to the below-average performers at the SALCC?
- If not, what do you think should be done to assist?
- How would you rate the current orientation program at the SALCC?

Relevance of the Curriculum

- Do you think that the present curriculum influences sustainable academic performance?
- If not, suggest ways in which it can be improved or adjusted.

Guidance Counsellor Questionnaire

The questionnaire consists of a total of nine (9) questions. These questions comprise of six (6) open-ended and three (3) closed-ended questions. The open-ended questions allows respondents to share their views, opinions and experiences based on the question item posed. A breakdown of the questionnaire was as follows:

Demographic Data

- What gender do you identify with?
- How long have you been a guidance counsellor at the secondary school level?
- At which secondary school are you based?

Student-based Factors

Student-based factors are measured using two variables: self-regulatory learning strategies and academic performance; and student-engagement and academic performance. The test items include:

Student-engagement and Academic Performance

- What are some of the common issues, concerns, and fears faced by students with reference to post-secondary education, if any?

Self-regulatory Learning Strategies and Academic Performance

- Are any of the graduates from the secondary school system returning for counselling because of challenges experienced at the SALCC?
- If yes, what are some of the common issues?
- If not, explain.

School-based Factors

School-based factors were measured using one variable: institutional factors and academic performance. Test items included:

Guidance and Support

- Please identify the role of the guidance counsellor with reference to preparing students for CSEC and post-secondary education?
- Are you satisfied with what is being done at the secondary school level in preparing students for post-secondary level training?
- If not, please indicate what can be done to assist or prepare these students for post-secondary education.

Secondary School Teachers Questionnaire

The questionnaire consists of a total of eleven (11) questions. These questions comprise of six (6) open-ended and five (5) closed-ended questions. The open-ended questions allows respondents to share their views, opinions and experiences based on the question item posed. A breakdown of the questionnaire was as follows:

Demographic Data

- What gender do you identify with?
- How long have you been teaching at the secondary school level?
- What is your subject area of specialization?
- At which secondary school are you based?
- What level of education have you completed? [Tick the options which reflect your qualifications]

Student-based Factors

Student-based factors are measured using two variables: self-regulatory learning strategies and academic performance; and learner's ability and academic performance. The test items included:

Learner's Ability and Academic Performance

- How prepared are your students for post-secondary education?

Self-regulatory Learning Strategies and Academic Performance

- What feedback, if any, have you received from current and past students at the SALCC in terms of the challenges experienced?

School-based Factors

School-based factors are measured using one variable: relevance of the curriculum. The test item included:

Relevance of the Curriculum

- How satisfied are you with the curriculum at the secondary school level in preparing students for the CSEC examination? Please explain.

Guidance and Support

- Are you satisfied with the existing systems for preparing students for sustainable academic performance in post-secondary education?
- If yes, why?
- If not, what do you think should be done to ensure their sustainable academic performance in post-secondary education.

Employer Questionnaire

The questionnaire consists of a total of ten (10) questions. These questions comprise of eight (8) open-ended and two (2) closed-ended questions. The open-ended questions allows respondents to share their views, opinions and experiences based on the question item posed. A breakdown of the questionnaire was as follows:

Demographic Data:

- What gender do you identify with?
- What is your job title within your organization?
- How long have you been employed with the organization?

Student-based Factors

Student-based factors are measured using two variables: motivation and academic performance and learner's ability and academic performance. The test items included:

Motivation and academic performance

- How willing are you to employ an SALCC graduate if a vacancy exists compared to graduates from another learning institution?
- If not prepared, please explain why.

Learner's Ability and Academic Performance

- On a scale of 1-10, 10 being excellent, how would you rate the average student's preparedness for the work environment in terms of their Soft Skill?
- On a scale of 1-10, 10 being excellent, how would you rate the average student's preparedness for the work environment in terms of their knowledge?
- On a scale of 1-10, 10 being excellent, how would you rate the average student's preparedness for the work environment in terms of their Skills Set?
- How satisfied are you with the crop of students sent on internship over the last 4 years? Please explain.
- What are some of the challenges/issues encountered with students on internship over the last 4 years?

School-based Factors

School-based factors are measured using one variable: relevance of the curriculum. Test items include:

Relevance of the Curriculum

- Do you think that the SALCC is meeting the needs of employers? If yes, explain. If not, explain?

Graduates Questionnaire

The questionnaire consists of a total of twelve (12) questions. These questions comprises of four (4) open-ended and eight (8) closed-ended questions. The open-ended questions allows respondents to share their views, opinions and experiences based on the question item posed. A breakdown of the questionnaire was as follows:

Demographic Data

- What gender do you identify with?
- What year did you graduate from the Sir Arthur Lewis Community College?
- What program of study did you complete?
- What is your current status?

Student-based Factors

Student-based factors are measured using two variables: prior secondary school performance and tertiary level academic performance as well as learner's ability and academic performance. The test items included:

Prior Secondary School Performance and SALCC Academic Performance

- How would you rate your academic performance at SALCC in relation to secondary school?

Learner's Ability and Academic Performance

- What is the highest level of education have you completed?

- How prepared were you for the adjustment from secondary school to post-secondary training? Please explain.
- How well did SALCC prepare you for the workplace or institutions of higher learning?

School-based Factors

School-based factors are measured using one variable: institutional factors and academic performance. The test items included:

Institutional Factors and Academic Performance

- What were some of the challenges experienced at the SALCC with reference to: a) Course Work b) The Teaching Methods c) The Learning Environment d) The Facilities e) Your Interaction with Lecturers?

Guidance and Support

- Did you feel that you had the support and necessary systems to assist you through college life (SALCC)? If not, what was missing? Please explain.

Interview Protocol - Students Services Unit Questionnaire

The interview schedule consists of a total of ten (10) questions. These questions comprises of nine (9) open-ended and one (1) closed-ended questions. The open-ended questions allows respondents to share their views, opinions and experiences based on the question item posed. A breakdown of the questionnaire was as follows:

Demographic Data

- What gender do you identify with?
- How long have you been a member of the Students Services Unit?

Student-based Factors

Student-based factors are measured using one variable: self-regulatory learning strategies and academic performance. The test items included:

Self-regulatory Learning Strategies and Academic Performance

- What are some of the common issues or complaints students reported to the Students Services Unit?

School-based Factors

School-based factors are measured using one variable: institutional factors and academic performance. The test items include:

Guidance and Support

- What are the current policies/systems employed at the SALCC, aimed at assisting students in adjusting to post-secondary school life?
- Please identify the orientation process/system employed at the SALCC? Please explain.
- What policy, if any, exists in assisting students with their SALCC school experience?
- Are these programs effective? If yes, explain. If not, explain.
- What systems are in place to assist and support low academic performers and provide support for them?
- If there are no systems in place, please recommend what could be implemented.

Observation Schedule – Secondary School Teachers

The questionnaire consists of a total of twenty (20) questions. These questions comprise of three (3) open-ended and seventeen (17) closed-ended questions. The open-ended questions allows respondents to share their views, opinions and experiences based on the question item posed. For

example, “Number of students are in the class.” The closed-ended questions allowed participants to choose the appropriate option which reflected their response. For example, “4. Did the teacher provide a lesson plan? [Tick one option] Yes No.” Additionally, the questions addressed demographic data as well as other variables which measured student-based and school-based factors. A breakdown of the questionnaire was as follows:

Demographic Data

- Subject area to be observed?
- Number of students in the class.
- Class form.

Student-based Factors

Student-based factors are measured using one variable: learner’s ability and academic performance. The test items included:

Learner’s Ability and Academic Performance

- Rate the students’ ability to understand the lesson taught.

School-based Factors

School-based factors are measured using one variable: institutional factors and academic performance. The test items included:

Teacher-Student Interaction

- Did the teacher provide a lesson plan?
- Did the teacher outline the teaching strategies and methods of assessment in the lesson plan?
- Did the teacher explain the objectives of the lesson?
- Rate the teacher’s knowledge of the subject taught.

- Did the teacher adapt the content to the level of the students' ability?
- Rate the teaching method used.
- Rate the method of assessment used.
- Rate the teacher's interaction with students.
- Did the teacher answer questions posed by students effectively?
- Was the teacher resourceful?
- Did the teacher use the appropriate teaching aids?
- Did the teacher show professionalism in his/her department?
- Did the teacher encourage learners to work collaboratively?
- Did the teacher show enthusiasm for the lesson?
- Rate the overall execution of the lesson.
- Did the teacher ensure that the students understood the concept taught before moving on with the lesson?

Study Procedures and Ethical Assurances

This study received approval from UREC to certify the ethics application, research instruments, gate keeper letter, consent forms and approvals from the Sir Arthur Lewis Community College as well as the Ministry of Education on May 27th, 2021, in order to proceed with the data collection phase for this research. To ensure that the ethical guidelines were followed in the collection of primary data for this study, a letter was written to the Vice Principal with responsibility for academics, to solicit permission to conduct the case study at the Sir Arthur Lewis Community College, Saint Lucia. A letter was received from the Vice Principal on 3rd December 2019 approving the request. Thereafter, letters were written to past and present students, lecturers and employers' representatives inviting them to participate in the study.

Permission was sought from the Ministry of Education through the Chief Education Officer requesting permission to conduct surveys at a sample of the nation's secondary schools and presenting a proposed observation schedule. A Research in Education application was completed and submitted to obtain permission from the Corporate Planning Unit, outlining the details of the research. The document was stamped and returned, granting permission on 5th January 2021. Further, the Ministry of Education advised contacting the District Education Officers to make arrangements with principals and teachers to conduct the observations and the surveys.

Individuals identified as participants have been considered as people who can make a significant contribution to this study. Students and lecturers were solicited to discuss the student-based and school-based factors which contribute to the students' inability to sustain their academic performance at SALCC, and staff of the Students' Services Unit are selected to discuss the systems that are currently utilized by the SALCC to assist students with college life. Guidance counsellors within the secondary school system are selected to discuss what is being done at secondary schools to prepare students for post-secondary level education. Secondary school teachers are selected to obtain their input on the curriculum and assess the effectiveness of their teaching practices in preparing them for post-secondary education. Employers are recruited to discuss the issues or challenges, if any, for graduates and students during internship and employment, post-graduation. Graduates are recruited to discuss their level of preparedness for study at the SALCC, the challenges encountered and the impact of their experience in the world of work.

Initially, the research project took place at the Sir Arthur Lewis Community College campus, the campus of the selected secondary schools, offices of employers, and past students at the Sir Arthur Lewis Community College at a location convenient to them. However, due to

COVID-19 restrictions enacted by the Government of St. Lucia, some of the questionnaires, were distributed via Google forms and some observations and the interview schedule were conducted online using the Google Meet platform and Zoom.

Ethical Assurances

The role of the researcher was critical in ensuring that the above ethical considerations were met. As such, all participants in this study were given an Informed Consent form which they were obliged to read, sign, and return to the researcher on a stipulated date. For this investigation, all participants, in accordance with the laws of Saint Lucia, would have attained the age of adulthood.

Once consent was given, the participants were briefed on the nature of the study, what was required of them, and the advantages and disadvantages of their participation, to allow for their full disclosure and honest participation. They were reminded that their participation was voluntary, and assured of their right to withdraw at any moment without explanation if they experienced any discomfort during the study. Participants were informed that their identity would be kept anonymous, and any personal or sensitive information would be treated with discretion unless they instructed otherwise. Moreover, in this case, pseudonyms were used to protect their identity and ensure confidentiality.

When the research was completed, the researcher went through a debriefing process. Additionally, the participants were also informed that they can access their data during a specific and agreed period.

Upon completion of data collection, the researcher refrained from publishing inaccurate statistics or either mistakenly or deliberately fail to report some statistics that may not align with

the results of the research. With the availability of new advancements in technology, the researcher also took the greatest measures to ensure that all documents are stored in a secure location.

Another ethical consideration was the researcher's influence on the study as a researcher. The researcher was cognizant that her role, opinions, and values could impact on the generation and interpretation of data. As such, the researcher addressed any issues of researcher effects and endeavored to control biases (to her knowledge) and kept a description of daily actions. With regard to the researcher's role as the observer during the lesson observation, the researcher limited the contact with teachers and students being observed (Cohen, et al., 2007). This was because the researcher's intent was not to manipulate any of the events during the lesson but rather to observe the events independently in their natural state (Yin, 2009). In doing so, it enabled the researcher to have an objective view and allowed the researcher the opportunity to assess the lesson and write notes.

It is noted that a proper investigative piece should firstly adhere to ethical guidelines of the profession, the organization, and personal ethics to uphold its credibility and thwart any potential litigation as well as avert any possible bias. Integrity in the investigative piece was addressed in the most feasible way possible, with adequate thought and evaluation of other approaches to guarantee the reliability and validity of the results. Contingent on the nature of the investigation, it can sometimes be difficult to be truthful, responsible, and ethical in research. In as much as these ethical principles may not automatically ensure that the information gathered is accurate, the implementation of these ethical principles safeguarded as much as possible the researcher, the participant, and the integrity of the investigation.

Data Collection and Analysis

Data Collection

Permission was sought from the Vice Principal at the SALCC, and granted for the recruitment of students, faculty, and staff to participate in the study. Permission was also requested from the Department of Education, Innovation, Gender Relations, and Sustainable Development and obtained through the Chief Education Officer for recruitment of secondary school teachers and guidance counsellors to participate in this study. Letters of invitation to participate were also issued to the Human Resources Managers of five major employers/businesses participating in the SALCC internship program. Additionally, letters of invitation to participate were also issued to a sample of graduates from the Departments of Agriculture, Technical Education and Management Studies as well as from the Arts, Science and General Studies, respectively, of the SALCC, soliciting their participation in the study.

The researcher, in preparation for the primary data collection for this study, briefed participants on the purpose of the investigation prior to the distribution of questionnaires and the ethical assurances and ethical obligations concerning their participation. Subsequently, the participants were sent a consent form which they were required to complete and return to the researcher. However, due to the COVID-19 pandemic which started affecting the island of St. Lucia in February 2020, and in keeping with the protocols established by the Government of St. Lucia, online versions of all the questionnaire categories and the consent form were prepared. These questionnaires were embedded as a hyperlink which were emailed to participants. The email also included a consent form which respondents were required to complete and return to the researcher. Respondents were required to click on the hyperlink, and they were instantly taken to the questionnaire. Their responses were recorded automatically and returned to the researcher with

no need for downloading the document. In the case of the interview scheduled with the Students Services Department of the Sir Arthur Lewis Community College, the interview took place via a Zoom meeting scheduled for this purpose which was recorded.

To complete the observation schedule, contact was established with the Department of Education, Innovation, Gender Relations and Sustainable Development through the Chief Education Officer and the District Education Officers to make arrangements with principals and teachers for the conduct of the observations. It is noted that due to the COVID-19 pandemic, face-to-face learning had been suspended for approximately 95% of the period under review (February 2020 – to April 2021), except for Form 5 students preparing for the annual CSEC examinations and students pursuing technical courses at the SALCC. Scheduling the observation sessions was also challenging due to the fluidity of the protocols and the availability of face-to-face classes. While some schools conducted their Form 5 classes face-to-face, others opted for a blended approach to teaching or were teaching full-time online. Thus, some observations were conducted during face-to-face classes and others during live sessions online.

The abovementioned respondents were solicited to provide vital information for this study. As such, the following research tools were issued to obtain the views of respondents with respect to the research questions.

- **Student Questionnaires (SQ) and Lecturer Questionnaires (LQ).** To identify the student- and school-based factors which influence the sustainable academic performance of students at the SALCC.
- **Staff of the Students Services Interview Schedule (SSSIS).** To identify the systems that are currently employed by the SALCC to assist students with college life.
- **Guidance Counsellor Questionnaire (GCQ).** To identify the systems that are currently

employed at the secondary school level in preparing students for post-secondary level education and the issues highlighted by students in preparing for post-secondary level education.

- **Employer Questionnaires (EQ).** To identify the issues if any for graduates and students during internship and employment post-graduation.
- **Secondary School Teacher Questionnaire (SSTQ).** To obtain their feedback on the curriculum and assess the effectiveness of their teaching practices in preparing students for post-secondary education.
- **Graduates Questionnaire (GQ).** To identify the factors which influenced their academic performance, the challenges encountered and the impact of their experience in the world of work.
- **Secondary School Teachers Observational Schedule (SSTOS).** The researcher will observe the teaching methods and practices used at a sample of the nation's secondary schools, where the researcher will listen and record what transpires in the classroom during a lesson to support information, which was gathered through the questionnaire.

Below is a breakdown of the alignment of the research instruments used to gather data for this study with the appropriate research question and hypothesis to be tested.

Table 3.2*Respondents, Research Question and Data Collection*

Respondents	Research Questions	Data Collection Tool
Lecturers and Students	RQ1, RQ2, RQ3 and RQ4	Questionnaire
Secondary School Teachers	RQ1, RQ2, RQ3 and RQ4	Questionnaire and Observational Schedule
Staff of the Students Services Unit	RQ2 and RQ4	Interview
Guidance Counsellors	RQ1, RQ2, RQ3 and RQ4	Questionnaires
Employers	RQ1, RQ2, RQ3 and RQ4	Questionnaires
Graduates	RQ1, RQ2, RQ3 and RQ4	Questionnaires

Data Analysis

The study utilizes Datatab to analyze the data collected for this study. The data is analyzed utilizing correlation analysis, logistic regression, and descriptive statistical analysis. The data analysis is accomplished firstly by filtering, assigning themes, coding, entering the data into Microsoft Excel. The coding process is completed by assigning numerical values to answers of responses as the pre-step to analysis into the appropriate format understood by the software. This process is utilized to code the data from questionnaires, observational schedules and closed-ended questions found in the interview.

This data is then exported and inserted into the statistical calculator in *Datatab* after which the decision is made as to what is to be done with the data. Then, the variables (independent and dependent) which are to be analyzed are selected. Subsequently *Datatab* then selects the appropriate method and interprets the results. Correlation analysis is utilized to determine whether there is a connection between the independent variables (student- and school-based factors) and dependent variable (sustainable academic performance). The logistic regression analysis is utilized

to indicate which variables are significant in predicting sustainable academic performance. A level of significance of 0.05 is used.

The qualitative data collected from open-ended questions from questionnaires and the interview are analyzed by utilizing thematic analysis. Descriptive statistics are utilized to explain these results through the real experiences of students, lecturers, graduates, staff of the Students' Services Unit, secondary school teachers, guidance counselors and employers participating in the SALCC internship program on the school-based and student-based factors on sustainable academic performance of students at the SALCC. These themes are based on the research questions posed and objectives stated. The data which is analyzed are subsequently presented in the form of percentages and frequencies, where extrapolations are made, and conclusions are drawn. Figures and tables are utilized to present the analyzed data for this study. The table below outlines some of the pre-assigned themes that are used in the data analysis.

Table 3.3*Sample Pre-assigned themes and Relationships*

Sample Pre-Assigned Themes	Related Research Questions	Sample of Related Questions
Teacher-Student Interaction	RQ1 and RQ3	What is the average ratio of students to a teacher in your classes?
Student-Engagement	RQ1 and RQ3	How often were you able to complete assignments on time?
Teacher-Student Interaction	RQ2 and RQ4	Did the teacher adapt the content to the level of the students' ability?
Prior Academic Performance	RQ1 and RQ3	How would you rate your academic performance at SALCC in relation to secondary school?
Learners' Ability	RQ1 and RQ3	Are you able to keep-up with the demands of your program? If not, why?
Sustainable Academic Performance	RQ2 and RQ4	If not, what do you think should be done to ensure their sustainable academic performance in post-secondary education?

Triangulation for Confirmation Purposes

To ensure the validity and reliability in the presentation and analysis of the diverse constructions of realities, both methods and data triangulations are applied. Data collected through the observational schedule, the interview schedule and surveys administered via Google Forms are triangulated using descriptive statistical analysis. Overall, such triangulation of data collection efforts contributes to validity, as they ensured that the research relied on "Multiple forms of evidence rather than a single incident or data point in the study" (Creswell & Miller, 2000, p. 127).

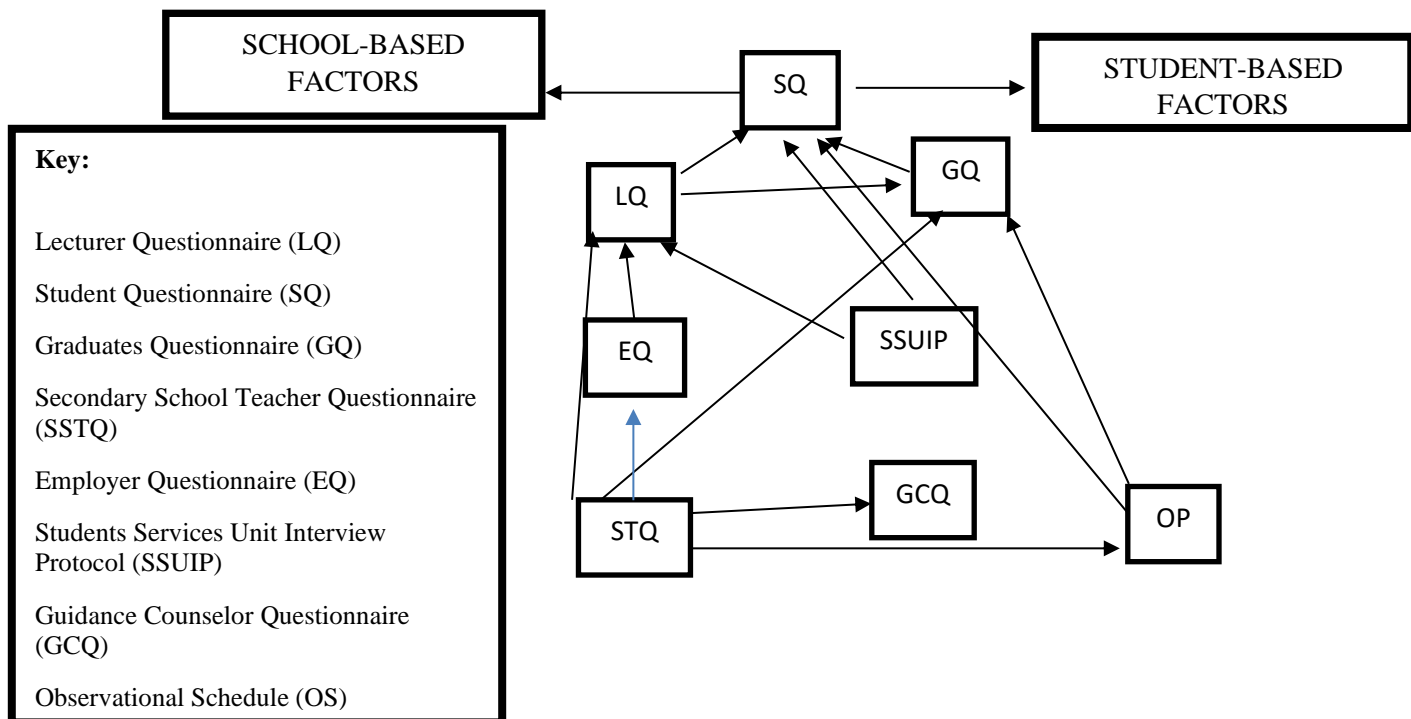
These procedures eventually increases the likelihood of applicability of the research outcomes to other settings or similar contexts.

To ensure that the data is verified, the researcher utilizes different strategies such as triangulation to enhance the meaningfulness, validity and trustworthiness of the data which would increase the robustness and credibility of the findings. Therefore, the literature gathered from secondary data is used to guide the researcher to either add meaning to the study or explore other reasons that will assist in the clarification of the data gathered.

Additionally, the use of triangulation helps to identify which variables, within each factor, have the most significant impact on the students' ability to sustain their academic performance at the Sir Arthur Lewis Community College. The matrix below illustrates how the triangulation process was done.

Figure 3.2

Sample Triangulation Framework



Summary

The research approach used for this study is a mixed method research approach utilizing a case study research design. A mixed method approach was implemented through the use of both qualitative and quantitative means of data collection. The case study research design allowed the researcher to use multiple forms of data collection which included questionnaires, an observational schedule, and an interview protocol to collect primary data for this study. It is notable however, that even though the case study research design and its implementation is very complex, it helped to validate and corroborate the findings from the methods used. Despite the identified limitations and weaknesses of both qualitative and quantitative research, the researcher remains convinced that this is the appropriate approach for the study being pursued. Triangulation of the data collected contributes to the validity, reliability, trustworthiness, and authenticity of the data as triangulation ensures that the research relies on “Multiple forms of evidence rather than a single incident or data point in the study” (Creswell & Miller, 2000, p. 127, as cited in Lee, 2019). In this instance, data collected from questionnaires, an observational schedule and interview protocol were triangulated. These procedures eventually increases the likelihood of applicability of the research outcomes to other settings or similar contexts.

Moreover, the researcher maintained the integrity of the research documents by ensuring the highest level of reliability and validity of the research. To achieve this, the researcher ensured that the research questions measured what they were expected to measure, that is, they had high validity and reliability. Finally, the research ensured that ethical guidelines were adhered to in order to safeguard, as much as possible, the researcher, the participant, and the integrity of the research.

CHAPTER 4: FINDINGS

This chapter presents the findings of the study as derived from the methodologies used in the previous chapter, in accordance with the key objectives of the study. As such, the data presents findings on the student and school-based factors which influence academic performance, the extent of the influence of the student and school-based factors on sustainable academic performance as well as an analysis of the influence of secondary school teaching methods on college entry grades. The study had the following research objectives:

1. Investigate the student-based factors that determine the sustainable academic performance of students in Sir Arthur Lewis Community College in Saint Lucia.
2. Investigate the influence of school-based factors on the sustainable academic performance of students in Sir Arthur Lewis Community College in Saint Lucia.
3. Establish the extent to which student-based factors influence the sustainable academic performance of students in Sir Arthur Lewis Community College in Saint Lucia.
4. Establish the extent to which school-based factors influence the sustainable academic performance of students in Sir Arthur Lewis Community College.

To obtain data for this study, 939 questionnaires were administered to 180 Students who were the primary group under investigation, 11 Lecturers, 1 member of the Students Services Unit, 3 Guidance Counsellors, 5 Employers, 30 Secondary School Teachers and 709 Graduates (2015-2019). Out of the targeted 939 participants, 638 questionnaires were filled in and returned, which included responses from 180 Students, 11 Lecturers, 1 member of the Students Services Unit, 3 Guidance Counsellors, 5 Employers, 30 Secondary School Teachers and 404 Graduates (2015-2019). This represented a 68% response rate, which is considered satisfactory to make conclusions for the study. This can be supported by Mugenda and Mugenda (2003) who state that a response

rate of 50% is adequate, a response rate of 60% is good and a very good response rate is 70% and above. Thus, based on these assertions a response rate of 68%, in this instance, is good.

Trustworthiness of Data

For the purpose of this study, a mixed-method research approach was used to gather the data. As such, it incorporated the use of both qualitative and quantitative forms of data collection, making it imperative to use the appropriate strategies for validation. Criswell (2007, as cited in Lee, 2019), for example, highlights eight procedures for data validation which includes “Prolonged engagement and persistent observations in the field; triangulation and multiple sourcing of data; peer review and debriefing for external checks; negative case analysis; clarifying for research bias; member checking; thick description; and external audits.” However, Lincoln and Guba (1985, as cited in Cope, 2014) were able to review the argument put forward by Criswell (2007, as cited in Lee, 2019) and condense his approach by putting forward the tenets of “credibility, transferability, dependability and confirmability” as critical to establishing trustworthiness in research.

Credibility

To ensure credibility of the data collected, triangulation was used. This enabled the researcher to use multiple forms of data collection, where biases of each method balanced out each other, so that the findings could be corroborated or converge with one another to increase the validity of the investigation. Additionally, to guarantee the credibility of the data, participants in the research were all associated with Sir Arthur Lewis Community College as a student, lecturer, graduate, staff of the Students Services Unit and employer-participant in the SALCC internship program. Also involved, were teachers on teaching practice at the nation’s secondary schools and guidance counselors at the nation’s secondary schools charged with the responsibility of providing guidance and support, particularly those who endeavour to pursue post-secondary level of

education at institutions such as the SALCC. As such, these participants have the knowledge and experience to provide insights into the school-based and student-based factors on sustainable academic performance of students at the SALCC.

Transferability

The researcher was able to identify key variables which were employed to establish appropriate themes/codes, which additionally serve as support for the results in this study (Leedy & Ormond, 2013). These themes/codes were established from the Educational Productivity Theory (1981), which provided additional analytical weight in developing the theories for the study. Moreover, demonstrating saturation was also a determinant in ensuring that the data collected was sufficient to provide credibility for the theory claimed (Lee, 2019). It is notable that the use of the Educational Productivity Theory in this study is limited in its transferability since the variables identified are situational in this application.

Confirmability

To reduce bias in this study, several controls were utilized in the study. Using Google Forms to capture the data from the questionnaires, as well as employing the use of Google Meet and Zoom video conferencing to conduct interviews and observational schedules. Manually coding the interviews and internship feedback forms using grounded theory methodology assisted in ensuring the data was interpreted objectively, which also helped to reduce bias. To remain objective, the researcher used memos to record the theory which emerged by promoting reflection during the research process (Lee, 2019).

Dependability

The phenomenon under investigation can be repeated by researchers to yield similar results. Obtaining information from various categories of participants who were in some way

affiliated with the SALCC provided key insights into the school-based and student-based factors on sustainable academic performance of students at the SALCC. Thus, the insights provided by these participants are sufficient enough to replicate the study, yielding similar results as obtained from this study. Moreover, an audit trail can be employed to review and examine the research process and data analysis to ensure the consistency of the findings.

Reliability and Validity of Data

When conducting an investigation, the research findings must be accepted by the research community as well as respondents. To achieve this, one cannot underscore enough the importance of reliability and validity of the study. The instrument used to gather data is an essential component of the research because it is the underlying element of reliability and validity of the study which depends on the qualitative or quantitative method used.

Researchers undertaking quantitative research use quantitative measures to test theoretical generalizations. In this paradigm the significance is on facts and sources of behaviour, secondly, the details are in the form of numbers that can be computed and summarized, thirdly, mathematical procedures are generally used for evaluating the numeric data and lastly, the concluding result is articulated in statistical terminologies. However, writers who seek cause and effect determination, prediction and generalization of research findings, qualitative researchers pursue discovery, comprehension, and extrapolation in similar situations. It was essential, therefore, to understand reliability and validity in research and how they affect the accuracy of the research findings.

Validity, according to Lee (2019) is the extent to which the test item measured what it intended to measure. While, according to Gravetter and Wallnau (2020), reliability is the invariability of the measurement. Reliability refers to the stability of a measure. Mostly, it is the degree to which measurements are consistent overtime under varied conditions whether different

persons perform the measurements, on different instances, under different situations, or with perhaps other instruments which measure the same thing. Research has discovered three types of reliability in quantitative research. First, the degree to which a measurement, given repeatedly, remains the same. Secondly, the stability of a measurement over time. Thirdly, the similarity of measurements within a given period.

In scientific research, one would hope that when one variable is measured and retested, the same measurement will be obtained. This is referred to as the stability of the instrument. However, if this does not occur, then doubts arise as to the accuracy of the measurement. If the measure is stable, then the results should be homogeneous. The high level of stability indicates a high level of reliability, which concludes that the results can be repeated. Moreover, social science research respondents are often required to provide self-reports of things like symptoms functioning and personality. It is crucial that these self-reports be also consistent over time.

There are, however, flaws with test-retest reliability. Occasionally, it is difficult to realize whether it is a situation of unacceptable test-retest reliability or merely investigating a topic that has a great deal of inconsistency.

Due to the repeatability of the test, the respondents may be familiar with it and as such have an impact on the responses given. One cannot ensure that there were no differences in extraneous circumstances such as attitude change ensued. This could result in a change in the responses provided. Further, when participants respond to a set of test items, the score derived represents only a small sample of behaviour. Consequently, adjustment in scores may be due to some characteristic of the participant which may lead to errors of measurement. These kinds of errors will reduce the authenticity and reliability of the instrument and the test scores. Therefore, it is the researchers' responsibility to ensure high consistency and authenticity of the tests and

scores. Although the researcher may be able to demonstrate the repeatability of the research instrument as well as its internal consistency, and authenticity, the instrument itself may not be credible.

To ensure reliability in qualitative research, examination of trustworthiness was crucial. In contrast, some writers argue that because reliability is concerned with measurements it does not take into qualitative research into consideration. Therefore, when judging quality in qualitative research reliability is irrelevant. If it is used, however, it can be concluded that the study is flawed.

The data utilized in this study was self-reported. According to Lee (2019) who, based on previous research, posits those two issues may arise when collecting self-reporting data, namely: the incapacity of respondents to provide reliable information as well as their apprehension to provide truthful information. Thus, to avert this, the questionnaires designed for this study satisfied the five general conditions for self-reports to be valid as put forward by Lee (2019). According to Kuh (2001, as cited in Miller et al., 2021): “When the information requested is known to the respondents; the questions are phrased clearly and unambiguously; the questions refer to recent activities; the respondents think the questions merit a serious and thoughtful response; and answering the questions does not threaten, embarrass, or violate the privacy of the respondent or encourage the respondent to respond in socially desirable ways” (p. 4).

The items in the questionnaires were examined for face validity by a colleague who was selected based on her experience as a researcher and a lecturer in Business Studies and Education. The instrument was then pre-tested among eighteen randomly selected five full-time students, two lecturers, two guidance counsellors, two staff members of the students’ services unit, two employers, five graduates and two secondary school teachers all of whom were not participants of the study’s sample group who provided responses that best reflected their view, opinions, and

experiences. A test-retest reliability was conducted over a two-week period to determine the reliability of the research tools.

The reliability of the research instruments was achieved by conducting a Cohens Kappa, Kendall's Tau correlation and Pearson Coefficient Correlation. The results are as follows:

Table 4.1

Employer Questionnaire

Research Question	Cohens Kappa	Pearson Correlation	Comments
1, 2, 4, 5, 7, 8, 9	$\kappa = 1$		The Cohens Kappa showed that there was an almost perfect agreement between samples Pilot 1 and Pilot 2.
6	$\kappa = 0.71$		The Cohens Kappa showed that there was a substantial agreement between samples Pilot 1 and Pilot 2.
3		$r = 1$	There is a positive association between Pilot 1 Q3 and Pilot 2 Q3 in this sample."

Note. Table 4.1 shows the reliability of the employee questionnaire.

Table 4.2

Students' Services Interview Protocol (SSIP)

Research Question	Cohens Kappa	Comments
1 – 8	$\kappa = 1$	The Cohens Kappa showed that there was an almost perfect agreement between samples Pilot 1 and Pilot 2.

Note. Table 4.2 shows the reliability of the students' services interview protocol.

Table 4.3*Graduates Questionnaire (GQ)*

Research Questions	Cohens Kappa	Kendall's Tau	Pearson Correlation	Comments
2			$r = 1$	There was a positive association between Pilot 1 and Pilot 2.
1, 3, 5, 7, 8				There was an almost perfect agreement between samples Pilot 1 and Pilot 2
4		$r = 0.71$		There is a very high, positive association between Pilot 1 and Pilot 2.
6		$r = 0.93$		There is a very high, positive association between Pilot 1 and Pilot 2.
9		$r = 0.97$		There is a very high, positive association between Pilot 1 and Pilot 2.

Note. Table 4.3 shows the reliability of the graduates' questionnaire.

Table 4.4*Students Questionnaire (SQ)*

Research Question	Cohens Kappa	Kendal's Tau	Comments
1, 3, 4, 5, 7, 8, 9, 10, 14, 15, 17(b), 19, 20	$\kappa = 1$		There was an almost perfect agreement between samples Pilot 1 and Pilot 2.
2		$r = 0.4$	There is a medium, positive association between Pilot 1 Q2 and Pilot 2.
6, 16		$r = 0.89$	There is a very high, positive association between Pilot 1 and Pilot 2.
11		$r = 0.6$	There is a high, positive association between Pilot 1 and Pilot 2.
12, 17(a)		$r = 0.8$	There is a very high, positive association between Pilot 1 and Pilot 2.
13		$r = 0.7$	There is a very high, positive association between Pilot 1 and Pilot 2.
18	$\kappa = 0.38$		There was a fair agreement between samples Pilot 1 and Pilot 2.

Note. Table 4.4 shows the reliability of the student questionnaire.

Table 4.5*Lecturer Questionnaire (LQ)*

Research Question	Cohens Kappa	Comments
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18	$\kappa = 1$	The Cohens Kappa showed that there was an almost perfect agreement between samples Pilot 1 and Pilot 2.

Note. Table 4.5 shows the reliability of the lecturer questionnaire.

Table 4. 6*Guidance Counselor Questionnaire (GCQ)*

Research Question	Cohens Kappa	Comments
1, 2, 3, 4, 5,6, 7, 8,	$\kappa = 1$	The Cohens Kappa showed that there was an almost perfect agreement between samples Pilot 1 and Pilot 2.

Note. Table 4.6 shows the reliability of the guidance counselor questionnaire.

Table 4.7*Secondary School Teacher Questionnaire (SSTQ)*

Research Question	Cohens Kappa	Pearson Correlation	Comments
1, 3, 4, 5,6, 7, 8, 9, 10	$\kappa = 1$		The Cohens Kappa showed that there was an almost perfect agreement between samples Pilot 1 and Pilot 2.
2		$r = 1$	There was a positive association between Pilot 1 and Pilot 2.

Note. Table 4.7 shows the reliability of the secondary school teacher questionnaire.

Table 4.8*Secondary School Teacher Observational Schedule (SSTOS)*

Research Question	Cohens Kappa	Pearson Correlation	Comments
1, 2, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20	$\kappa = 1$		The Cohens Kappa showed that there was an almost perfect agreement between samples Pilot 1 and Pilot 2.
4, 5, 7	$\kappa = 0$		There was no agreement between samples Pilot 1 Pilot 2
3		$r = 1$	There was a positive association between Pilot 1 and Pilot 2.

Note. Table 4.8 shows the reliability of the secondary school teacher observation protocol.

The results of the test-retest reliability revealed that the questions were clearly understood by respondents, and they were acceptable. Additionally, it allowed the researcher to determine that there was a high level of comprehension on the part of the participants of this study which determined the questionnaire's content validity. The responses from all the questionnaires in pilot 1 and pilot two were generally consistent, which revealed that the internal reliability of the questionnaires was very high. The correlations were also reliable because there was a positive association between pilot 1 and pilot 2.

Thus, collecting data from these varied sources would enhance the reliability of the data by ensuring that the problem at hand was viewed and examined from multiple perspectives. Additionally, the more observations and types of measurements used, the better the opportunity to cross-check the reliability and validity of the findings. For example, for this study critical questions were posed in different formats, using different measurements to determine if the same answers were given. Moreover, careful, and well-designed research reduced the chances of misleading results and allowed more authentic conclusions to be drawn. Additionally, to avoid bias, the study was deliberate in soliciting, in as much as possible, department heads to identify current and past students to participate in this study. Also, through the Ministry of Education (MOE), the Chief Counsellor had identified a sample of counsellors and secondary school teachers who were willing and could contribute more meaningfully to the research.

It must be noted that the Covid-19 pandemic had impacted the education system in St. Lucia. Thus, with established protocols from the Ministry of Health and the Ministry of Education, there was an impact on the sampling methods chosen. While the researcher is cognizant of the limitations of each sampling method, the sampling methods chosen was appropriate under these circumstances. Thus, the researcher ensured the reliability and validity of the data collected.

In preparation for the data collection to conduct the primary data for this study, participants were informed on the purpose of the investigation prior to the distribution of questionnaires and consent forms. However, due to the COVID-19 pandemic which started affecting the island of St. Lucia in February 2020, and in keeping with the protocols established by the Government of St. Lucia, online versions of all the questionnaire categories were prepared, links shared, and consent forms emailed to participants. To complete the observation schedule, contact was established with the Ministry of Education through the Chief Education Officer and the District Education Officers in order to make arrangements with principals and teachers to conduct the observations. It must be noted that due to the COVID-19 pandemic, face-to-face learning had been suspended for approximately 95% of the period under review (February 2020 to date), with the exception Form 5 students preparing for CSEC examinations and students pursuing technical courses at the SALCC. Scheduling the observation sessions had also been challenging due to the fluidity of the protocols and the availability of face-to-face classes. While some schools conducted their Form 5 classes face-to-face, others opted for a blended approach to teaching or were fully online. Thus, some observations were conducted during face-to-face classes and others during live sessions online.

Although reliability and validity are independent of each other, they should not be considered as independent variables. This is because measurement may be valid but not reliable or reliable and not valid. Validity is also the degree to which the evaluation of the results of a test is justified, which is contingent on the purpose of the test.

However, the hypothesis of reliability and validity are considered differently by qualitative researchers who firmly consider these concepts as limited in quantitative terms. In other words, these terms as explained in quantitative terms may not apply to the qualitative research paradigm.

Replicating results are not as significant, quality research is concerned with precision, authenticity and transferability which provide the basis for assessing the findings when conducting qualitative research. In this instance, the two research methods or perspectives are fundamentally distinct paradigms.

There must be an appreciation of validity and reliability and its impact on the research findings. To achieve this, one must ensure that the tests are measuring what they are intended to measure, that is, they have high validity and are consistent over time, and that is, they have high reliability. Primarily, the more observations and types of measurements used, the better the opportunity to cross-check the reliability and validity of the findings. For example, the researcher may pose critical questions in different formats, using different measurements to determine if the same answers are given. Moreover, careful, and well-designed research reduces the chances of misleading results and allows more authentic conclusions to be drawn. If a test is repeated researchers must guard against possible inaccuracies since the respondent's mindset will have an impact on the responses given. It is important, therefore, to cross-check the results to ensure reliability and validity.

One must note that design flaws can delineate the value of the research, and one should work to design studies that reduce them to achieve accurate results. To ensure the integrity of the research document one must be cognizant of these issues and consider them in the design and sample chosen and to ensure some form of the verification process in the research. Also, while the researcher may plan to achieve accuracy in the research, it may not guarantee maximum reliability and validity. However, the design must consider the highest level of reliability and validity in the research.

Results

RQ1. Response on the student-based factors which influence the sustainable academic performance of students at the SALCC.

The first research objective was to investigate the student-based factors that determine the sustainable academic performance of students in Sir Arthur Lewis Community College in Saint Lucia. To address this research objective, the study participants were presented with a number of questions focused on student-based factors which would influence academic performance as adopted from Walberg (1981), which included the following variables: age, gender, motivation, prior academic performance, adjustability, perception of contact hours, regular class attendance, level of comfort working in groups, Level of comfort working individually, access to support, keeping up with demands and completing assignments on time. A correlation analysis was conducted to determine the influence of these variables on the sustainable academic performance of students. Accordingly, Point-Biserial Correlation Coefficient which measures the strength of association of two variables in a single measure ranging from -1 to +1, where -1 indicates a perfect negative association, +1 indicates a perfect positive association and 0 indicates no association at all, was utilized.

To analyze the qualitative data responses, the data was first filtered, themes and codes assigned, and the data entered into Microsoft Excel. The coding process was completed by assigning numerical values or frequencies to identify common themes, patterns, and associations. Descriptive statistics were used to explain the results of the experiences of the respondents. The findings for each variable are discussed below.

Table 4.9 provides an analysis to determine whether there is a relationship between age and sustainable academic performance. The distribution of age among respondents was critical to the study because the study aims to determine if age is a significant factor to sustainable academic performance. A total of 180 respondents who were current students during the time of this study participated in the survey. The age of the participants ranged from 16-20, 21-25, 26-30 and 41-45 years old. The age of the participants in the traditional group ranged from 16-20, which accounted for 152 respondents, while the age of the participants in the non-traditional group ranged from 21-45 accounting for 28 respondents. While the difference in the population size within age ranges appears disproportional, it is reflective of a true representation of the population demography of SALCC within any one cohort.

Table 4.9

Student Age and Sustainable Academic Performance

	16-20	21-25	26-30	31-45
	<i>Values</i>			
r_{pb}	0.07	-0.06	0.01	-0.09
df	178	178	178	178
t	0.95	-0.81	0.18	-1.27
p (2-tailed)	.342	.421	.859	.207

Note. Independent Variable: Age.

*Correlation Coefficient: Positive Correlation $R > 0$, Negative Correlation $R < 0$.

*Significant at $p < 0.05$.

A point-biserial correlation was run to determine the relationship between Age categories of 16-20, 21-25, 26-30, 31-45 and Increased or Sustained academic performance. There was

a positive correlation between Age 16-20 and Increased or Sustained academic performance, which was statistically not significant ($r_{pb} = 0.07$, $n = 180$, $p = .342$). There was a negative correlation between Age 21-25 and Increased or Sustained academic performance, which was statistically not significant ($r_{pb} = -0.06$, $n = 180$, $p = .421$). There was a positive correlation between Age 26-30 and Increased or Sustained academic performance, which was statistically not significant ($r_{pb} = 0.01$, $n = 180$, $p = .859$). There was a negative correlation between Age 31-45 and Increased or Sustained academic performance, which was statistically not significant ($r_{pb} = -0.09$, $n = 180$, $p = .207$).

Table 4.10 presents an analysis of the relationship between gender and sustainable academic performance.

Table 4.10

Student Gender and Sustainable Academic Performance

	Male	Female
	<i>Values</i>	
r_{pb}	- 0.09	0.09
df	178	178
t	-1.17	1.23
p (2-tailed)	.245	.219

Note. Independent Variable: Gender.

*Correlation Coefficient: Positive Correlation $R > 0$, Negative Correlation $R < 0$.

* Significant at $p < 0.05$.

A point-biserial correlation was run to determine the relationship between Male, Female and Increased or Sustained academic performance. There was a negative correlation between Male

and Increased or Sustained academic performance, which was statistically not significant ($rpb = -0.09$, $n = 180$, $p = .245$). While there was a positive correlation between Female and Increased or Sustained academic performance, it was statistically not significant ($rpb = 0.09$, $n = 180$, $p = .219$).

When comparing academic performance and gender, male respondents accounted for 33.9% of the overall responses which is also reflective of the cohort population within any given period at SALCC as well as national education data. Out of these respondents, 21.3% of students had their GPA improved, 34.4% of them had their GPA sustained while 44.3% of them experienced a decline in their GPA. Female respondents accounted for 65.0% of the overall respondents which is also reflective of the SALCC cohort population in any given period. Out of these responses, 20.5% of these students had their GPA improved, 44.4% had their GPA sustained while 35.0% experienced a decline in their GPA. Respondents who prefer not to disclose their gender accounted for 1.1% of the overall responses. Out of these responses, 50% of students had their GPA improved, 0.0% had their GPA sustained while 50% experienced a decline in their GPA.

From the data on gender, one can see that female respondents had overall improvement in their GPA. It also showed a greater percentage of sustainable GPA and reflected the lowest decline in GPA performance. This data is consistent with what appears nationally within the education system in St. Lucia. While you may see some breakthrough performances of male students who would excel above the norm, these make up a very small percentage of the male population. This reflects what happens in tertiary and post-tertiary levels of education in St. Lucia and has been a matter government's concern over the last decade.

Table 4.11 presents an analysis of the relationship between motivation and sustainable academic performance.

Table 4.11

Motivation and Sustainable Academic Performance

	Values
r_{pb}	0.08
df	178
t	1.02
p (2-tailed)	.308

Note. Independent Variable: Motivation.

*Correlation Coefficient: Positive Correlation $R > 0$, Negative Correlation $R < 0$.

* Significant at $p < 0.05$.

A point-biserial correlation which was run to determine the relationship between Internal Motivation and Increased or Sustained academic performance. There was a positive correlation between Internal Motivation and Increased or Sustained academic performance, which was statistically not significant ($r_{pb} = 0.08$, $n = 180$, $p = .308$).

When analyzing the qualitative data to understand the reasons for the students' level of motivation in selecting their program of study: "Preference for the Subject" accounted for 20.6% of the overall responses. Respondents who indicated "Career Choice" accounted for 47.2% of the overall responses. Respondents who indicated "To Gain Knowledge" accounted for 5.5% of the overall responses. Respondents who indicated "Influence of Friends" accounted for 4.4% of the overall responses. Respondents who indicated "Entrepreneur" accounted for 9.4% of the overall responses.

Responses with smaller percentages were not analyzed because they were not significant responses to reasonably make a conclusion coming from these responses. Those who had preference for subject, career choice, to gain knowledge, influence of friends and entrepreneurship were popular motivational factors. It was surprising to note that students who preferred the subject chosen showed the greatest decline in their sustainable academic performance.

Table 4.12 presents an analysis of the relationship between prior academic performance and sustainable academic performance.

Table 4.12

Prior Academic Performance and Sustainable Academic Performance

	CSEC Simple Numeric GPA	Increased or Sustained
CSEC Simple Numeric GPA	0.35	-0.15
Increased or Sustained	-0.15	0.24

Note. Independent Variable: Prior Academic Performance.

*Correlation Coefficient: Positive Correlation $R > 0$, Negative Correlation $R < 0$.

* Significant at $p < 0.05$.

Table 4.4 depicts a high, negative correlation between the variables CSEC Simple Numeric GPA and Increased or Sustained academic performance with $r = -0.51$. Thus, there is a high, negative association between CSEC Simple Numeric GPA and Increased or Sustained academic performance in this sample.

A Pearson correlation was performed to test whether there was an association between CSEC Simple Numeric GPA and Increased or Sustained academic performance. The result of

the Pearson correlation showed that there was a significant association between CSEC Simple Numeric GPA and Increased or Sustained academic performance, $r(178) = -0.51, p = <.001$.

Based on the sample of respondents (180), 1.7% scored an 'A' grade at CSEC examination while 1.7% scored an 'A' grade at SALCC. Of the population sample chosen, 45.6% scored a 'B' grade at the CSEC examination while 35.0% scored a grade 'B' at SALCC. Further, 49.4% of respondents scored a 'C' grade at the CSEC examination while 47.8% scored a grade 'C' at SALCC. At the CSEC examinations 3.3% of respondents scored a grade 'D', while 15.6% scored a grade 'D' at SALCC. Lastly, no students scored a grade 'E' at the CSEC examinations neither did they score a grade 'E' at SALCC.

While SALCC, based on entry level criteria, may from time to time accept students from secondary school who do not meet its entry requirements, none of these students were part of the population. From the data, it is noted that the high performers at the secondary school (A grade) sustained their academic grade at the SALCC. It is also noteworthy that there was a 10% decline in the performance of respondents coming to the SALCC from the secondary school system. This percentage is significant enough to warrant some level of further investigation and assessment.

On the other hand, for respondents coming into the SALCC from secondary school with a C grade performance, the data shows a fair consistency in the C performers while at the SALCC. While there was a 1.6% decrease in their academic performance, it was not considered significant enough to warrant further investigation. SALCC accepted 3.33% of respondents with a D grade but there was a significant increase of 12.3% exiting the SALCC with D grades. What the data does not show is whether the 3.33% who came in with D exited with D or whether those coming in with C's have exited with Ds This is significant enough to require further investigation as there may be a number of other factors be they student or school based that may have contributed to the

poor grades. These grades may be reflective of respondents who may not have taken their work seriously, may not have attended classes or failed to complete their work on time.

Table 4.13 presents an analysis of the relationship between the students' ability to adjust and sustainable academic performance.

Table 4.13

Ability to Adjust and Sustainable Academic Performance

	Somewhat Easy	Not So Easy	Very Easy	Extremely Easy	Not at All Easy
<i>Values</i>					
r_{pb}	0.07	0.08	0.08	0.08	0.04
df	178	178	178	178	178
t	0.97	1.01	1.01	1.01	0.54
p (2-tailed)	.333	.312	.312	.312	.591

Note. Independent Variable: Ability to Adjust.

*Correlation Coefficient: Positive Correlation $R > 0$, Negative Correlation $R < 0$.

* Significant at $p < 0.05$.

A point-biserial correlation was run to determine the relationship between Ability to Adjust - Somewhat easy and Increased or Sustained academic performance. There was a positive correlation between Ability to Adjust - Somewhat easy and Increased or Sustained academic performance, which was statistically not significant ($r_{pb} = 0.07$, $n = 180$, $p = .333$).

A point-biserial correlation was run to determine the relationship between Ability to Adjust - Very Easy and Increased or Sustained academic performance. There was a positive correlation

between Ability to Adjust - Very Easy and Increased or Sustained academic performance, which was statistically not significant ($r_{pb} = 0.08$, $n = 180$, $p = .312$).

A point-biserial correlation was run to determine the relationship between Ability to Adjust - Very Easy and Increased or Sustained academic performance. There was a positive correlation between Ability to Adjust - Very Easy and Increased or Sustained academic performance, which was statistically not significant ($r_{pb} = 0.08$, $n = 180$, $p = .312$).

A point-biserial correlation was run to determine the relationship between Ability to Adjust - Not at all easy and Increased or Sustained academic performance. There was a positive correlation between Ability to Adjust - Not at all easy and Increased or Sustained academic performance, which was statistically not significant ($r_{pb} = 0.04$, $n = 180$, $p = .591$).

The analysis of the qualitative data to identify the major challenges which contributed to experience, the most significant reasons were the “new school environment” which accounted for 20%, the students’ experience include “heavy workload” 20%, the changes in “teaching methods” 21% and their expectations of teachers 16%.

Of less impact were “your expectations” of SALCC which accounted for 10%, “the teacher’s expectations of you” which amounted to 9% and “the lack of resources” which accounted for 4%. The majority, 52.8%, stated making the adjustment was not easy for them, followed by 33% indicating somewhat easy. A smaller percentage, 3.9%, said not at all easy. The majority found the transition a little difficult and, as such, strategies and interventions will have to be developed aimed at preparing the prospective students to make that transition easier at the secondary school level. Students who were able to transition were able to sustain their academic performance.

However, when SALCC lecturers were asked whether the students were prepared for college-level work, the response was a resounding 100% 'no'. When analyzing the qualitative data where lecturers were required to provide reasons for their answer, the most significant reasons for this response were the students' maturity level which accounted for 27%. Other significant reasons accounting for 18% respectively were the students' dependence on teachers, there seems to be a gap between secondary school and college, inadequately prepared for college level work, mismatch between CSEC grades and learner ability, long transition period, the struggle with tertiary level structure. Other reasons highlighted which accounted for 9% each were students do not understand course requirements, students have difficulty following instructions, students ill-advised about college expectations, students lack basic prior knowledge, students lack preparedness for classes, students' inability to manage workload and time, ease of making the transition, excited about college, and do not comprehend change in learning expectations.

Conversely, secondary school teachers and graduates both agree that students are somewhat prepared for college-level work accounting for 77% and 44% respectively. Only 5% of graduates indicated that they were extremely prepared, 10% of secondary school teachers and 43% of graduates indicated that students were very prepared, while 13% of secondary school teachers and 8% of graduates indicated that students were not at all prepared.

When analyzing the qualitative data for reasons for the graduates' responses, the variable which most impact their level of preparedness for post-secondary education were, (19%) prior academic performance, (19%) they did not know what to expect, (15%) they met the entry requirements and (11%) that their friends told them what to expect.

Table 4.14 presents an analysis of the relationship between perception of contact hours and sustainable academic performance.

Table 4.14

Perception of Contact Hours and Sustainable Academic Performance

	Values
r_{pb}	0.09
df	178
t	1.19
p (2-tailed)	.237

Note. Independent Variable: Perception of Contact Hours.

*Correlation Coefficient: Positive Correlation $R > 0$, Negative Correlation $R < 0$.

* Significant at $p < 0.05$.

A point-biserial correlation was run to determine the relationship between Perception of Enough Contact Hours and Increased or Sustained academic performance. There was a positive correlation between Perception of Enough Contact Hours and Increased or Sustained academic performance, which was statistically not significant ($r_{pb} = 0.09$, $n = 180$, $p = .237$).

Table 4.15 presents an analysis of the relationship between attending class regularly and sustainable academic performance.

Table 4.15

Attending Class Regularly and Sustainable Academic Performance

	Values
r_{pb}	-0.02
df	178
t	-0.3
p (2-tailed)	.761

Note. Independent Variable: Attending Class Regularly.

*Correlation Coefficient: Positive Correlation $R > 0$, Negative Correlation $R < 0$.

* Significant at $p < 0.05$.

A point-biserial correlation was run to determine the relationship between Attend Class Regularly and Increased or Sustained academic performance. There was a negative correlation between Attend Class Regularly and Increased or Sustained academic performance, which was statistically not significant ($r_{pb} = -0.02$, $n = 180$, $p = .761$).

When analyzing the qualitative data aimed at understating the students' reasons for their absenteeism, 26% of students indicated: "I am currently employed", 22% "lack resources", 5% had "issues with the online schedule", 5% cited "poor mental health" and 5% "technical difficulties". Other issues include, but are not limited to, 3% "lack sleep", 3% "lack motivation" and 3% "dislike the teaching method".

There appears to be no significant difference between those who attended class regularly and those who did not. Although the percentage of the population is not as significant as those who attended class, one can conclude that the regular attendance of class did not show any significant impact on the sustainable academic performance of respondents. However, lack of resources and poor mental health stand out to the researcher. There is a need for more counselling and student support services at the SALCC for these prospective students can seek help and attention.

However, when lecturers were asked whether they felt that students were prepared for class, 60% of them indicated that the students were not prepared at all and 40% of them indicated that students were somewhat prepared.

Table 4.16 presents an analysis of the relationship between comfort working in groups and sustainable academic performance.

Table 4.16

Comfort Working in Groups and Sustainable Academic Performance

	Very Comfortable	Very Uncomfortable	Un- Comfortable	Neither	Comfortable
	<i>Values</i>				
r_{pb}	0.02	0	-0.02	0.15	-0.04
df	178	178	178	178	178
t	0.21	-0.05	-0.22	1.97	-0.58
p (2-tailed)	.835	.98	.825	.05	.566

Note. Independent Variable: Comfort Working in Groups.

*Correlation Coefficient: Positive Correlation $R > 0$, Negative Correlation $R < 0$.

* Significant at $p < 0.05$.

A point-biserial correlation was run to determine the relationship between Comfort able Working in Groups-Very Comfortable and Increased or Sustained. Academic performance There was a positive correlation between Comfort able Working in Groups-Very Comfortable and Increased or Sustained academic performance, which was statistically not significant ($r_{pb} = 0.02$, $n = 180$, $p = .835$).

A point-biserial correlation was run to determine the relationship between Comfort able Working in Groups-Very Uncomfortable and Increased or Sustained academic performance. There was a negative correlation between Comfort able Working in Groups-Very Uncomfortable and Increased or Sustained academic performance, which was statistically not significant ($r_{pb} = 0$, $n = 180$, $p = .96$).

A point-biserial correlation was run to determine the relationship between Comfort able Working in Groups-Uncomfortable and Increased or Sustained. There was a negative correlation between Comfort able Working in Groups-Uncomfortable and Increased or Sustained academic performance, which was statistically not significant ($r_{pb} = -0.02$, $n = 180$, $p = .825$).

A point-biserial correlation was run to determine the relationship between Comfort able Working in Groups-Neither and Increased or Sustained academic performance. There was a positive correlation between Comfort able Working in Groups-Neither and Increased or Sustained performance, which was statistically not significant ($r_{pb} = 0.15$, $n = 180$, $p = .05$).

A point-biserial correlation was run to determine the relationship between Comfort able Working in Groups-Comfortable and Increased or Sustained academic performance. There was a negative correlation between Comfort able Working in Groups-Comfortable and Increased or Sustained academic performance, which was statistically not significant ($r_{pb} = -0.04$, $n = 180$, $p = .566$).

In essence, overall, working in groups does not show any significant impact on their level of comfort. However, since group work has become the new form of student interaction and collaboration, there is a need for more of this type of modality at the pre-tertiary level. Completing the student-based assessment (SBA) for CSEC is one of the areas which can be targeted in the future.

Table 4.17 presents an analysis of the relationship between comfort working individually and sustainable academic performance.

Table 4.17

Comfort Working Individually and Sustainable Academic Performance

	Very Comfortable	Very Uncomfortable	Un- Comfortable	Neither	Comfortable
	<i>Values</i>				
r_{pb}	0.08	0.09	0.03	-0.08	-0.1
df	178	178	178	178	178
t	1.01	1.22	0.41	-1.04	-1.35
p (2-tailed)	.315	.223	.68	.3	.178

Note. Independent Variable: Comfort Working Individually.

*Correlation Coefficient: Positive Correlation $R > 0$, Negative Correlation $R < 0$.

* Significant at $p < 0.05$.

A point-biserial correlation was run to determine the relationship between Comfortable Working Individually-Very Comfortable and Increased or Sustained academic performance. There was a positive correlation between Comfortable Working Individually-Very Comfortable and Increased or Sustained academic performance, which was statistically not significant ($r_{pb} = 0.08$, $n = 180$, $p = .315$).

A point-biserial correlation was run to determine the relationship between Comfortable Working Individually-Very Uncomfortable and Increased or Sustained academic performance. There was a positive correlation between Comfortable Working Individually-Very Uncomfortable and Increased or Sustained academic performance, which was statistically not significant ($r_{pb} = 0.09$, $n = 180$, $p = .223$).

A point-biserial correlation was run to determine the relationship between Comfortable Working Individually - Uncomfortable and Increased or Sustained academic performance. There was a positive correlation between Comfortable Working Individually - Uncomfortable and Increased or Sustained academic performance, which was statistically not significant ($r_{pb} = 0.03$, $n = 180$, $p = .68$).

A point-biserial correlation was run to determine the relationship between Comfortable Working Individually - Neither and Increased or Sustained academic performance. There was a negative correlation between Comfortable Working Individually - Neither and Increased or Sustained academic performance, which was statistically not significant ($r_{pb} = -0.08$, $n = 180$, $p = .3$).

A point-biserial correlation was run to determine the relationship between Comfortable Working Individually - Comfortable and Increased or Sustained academic performance. There was a negative correlation between Comfortable Working Individually - Comfortable and Increased or Sustained academic performance, which was statistically not significant ($r_{pb} = -0.1$, $n = 180$, $p = .178$).

Table 4.18 presents an analysis of the relationship between access to support and sustainable academic performance.

Table 4.18

Access to Support and Sustainable Academic Performance

	Values
r_{pb}	-0.03
df	178
t	-0.43
p (2-tailed)	.664

Note. Independent Variable: Access to Support.

*Correlation Coefficient: Positive Correlation $R > 0$, Negative Correlation $R < 0$.

* Significant at $p < 0.05$.

A point-biserial correlation was run to determine the relationship between Access to Support and Increased or Sustained academic performance. There was a negative correlation between Access to Support and Increased or Sustained academic performance, which was statistically not significant ($r_{pb} = -0.03$, $n = 180$, $p = .664$).

The majority of the respondents stated that they had no access to support. While there are gaps in the percentage of improvement and decline, it means that the absence of support could have had an impact on performance. It is against this background that this statement is made if one considers improved academic performance as the goal.

Lecturers at the SALCC were asked whether they were satisfied with the support and assistance given to below average students. 91% said “Yes” and 9% said “No”. Respondents who said “Yes” did not provide any information to support their response. To analyze the qualitative

data responses for this question, the data was first filtered, themes and codes assigned, and the data entered into Microsoft Excel. The coding process was completed by assigning numerical values or frequencies to identify common themes, patterns, and associations. Descriptive statistics were used to explain the results of the experiences of the respondents. When the qualitative data was analyzed to determine what can be done to assist, the responses included, but are not limited to, 20% indicated that there should be more tutorial groups, 5% assess the workload, 5% a mentoring program should be established, 5% increase the role of the Students' Services Unit.

It is noteworthy that when the representative of the Students' Services Unit was interviewed and asked about the common issues or complaints students reported to the Unit, no response was provided. When asked about the systems that are in place to assist and support low academic performers and provide support for them, the respondent indicated that the system is flawed. The respondent went on to provide additional responses through qualitative data that low academic performers are identified via the academic probation report. Support is usually left to the individual departments to initiate, and that solution usually means students are given a lighter workload which results in a longer time to complete their program.

When graduates were asked whether they had the support and necessary systems to assist them through college life, 71.6% said "No" and 28.4% said "Yes". To analyze the qualitative data responses, the data was first filtered, themes and codes assigned, and the data entered into Microsoft Excel. The coding process was completed by assigning numerical values or frequencies to identify common themes, patterns, and associations. Descriptive statistics were used to explain the results of the experiences of the respondents. When analyzing the qualitative data for reasons for their responses, of those who said "No", the following elements, which include but are not limited to, the following, 37% indicated support should be provided, 16% identified the need for

someone to deal with students' affairs, 14% indicated poor teacher-student interaction, 9% highlighted that there was inadequate support, 9% was not unaware of support systems, 4% things take too long to be resolved and another 5% the need to employ better teachers.

However, guidance counsellors were asked if any graduates from the secondary school system were returning for counselling because of challenges experienced at the SALCC. 50% indicated "Yes", while 50% said "No". To analyze the qualitative data responses, the data was first filtered, themes and codes assigned, and the data entered into Microsoft Excel. The coding process was completed by assigning numerical values or frequencies to identify common themes, patterns, and associations. Descriptive statistics were used to explain the results of the experiences of the respondents. When analyzing the qualitative data provided for the reasons for the responses of guidance counselors, the most significant issues reported by students were self-esteem issues which account for 67%. Other issues reported were, not being able to keep up with the rigors of SALCC (i.e., time management, workload, learning on their own), bullying, working independently (i.e., not as much pampering and handholding by teachers) and the fast pace of instruction, all 33%, respectively.

The above data has identified gaps between student, lecturer and SALCC expectations. These gaps, undoubtedly, can potentially impact student sustainable performance at the SALCC.

Table 4.19 presents an analysis of the relationship between keeping up with demands and sustainable academic performance.

Table 4.19

Keep Up with Demands and Sustainable Academic Performance

	Values
r_{pb}	0.04
df	178
t	0.51
p (2-tailed)	.614

Note. Independent Variable: Keeping up with demands.

*Correlation Coefficient: Positive Correlation $R > 0$, Negative Correlation $R < 0$.

* Significant at $p < 0.05$.

A point-biserial correlation was run to determine the relationship between Keep up with demands and Increased or Sustained academic performance. There was a positive correlation between Keep up with demands and Increased or Sustained academic performance, which was statistically not significant ($r_{pb} = 0.04$, $n = 180$, $p = .614$).

To analyze the qualitative data responses, the data was first filtered, themes and codes assigned, and the data entered into Microsoft Excel. The coding process was completed by assigning numerical values or frequencies to identify common themes, patterns, and associations. Descriptive statistics were used to explain the results of the experiences of the respondents. An analysis of the qualitative data revealed reasons for their responses which included, but not limited to, 20% indicated “the heavy workload”, 5% indicated that “it was time-consuming teaching

myself”, 4% indicated “teaching myself I do not understand what I am supposed to do”, 4% indicated “did not understand”, 2% indicated “did not always understand what was taught”, 2% stated “disliked online learning” and 2% indicated “no support from the teacher”. However, the least impact was 1% “lack of resources” and 1% “high student expectations”.

Based on the data above, most respondents were able to keep up with the demands of their program. For those respondents who were unable to keep up, there was a close percentage in their ability to sustain their academic performance or otherwise. Overall, those who showed a decline, the figures are high. Being able to keep up has no sufficient bearing on the students’ sustainable academic performance based on the data.

Table 4.20 presents an analysis of the relationship between completing assignments on time and sustainable academic performance.

Table 4.20

Completing Assignments on Time and Sustainable Academic Performance

	Frequently	Occasionally	Rarely
	<i>Values</i>		
r_{pb}	0.09	-0.07	-0.08
df	178	178	178
t	1.23	-0.97	-0.01
p (2-tailed)	.219	.333	.313

Note. Independent Variable: Competing Assignments on Time.

*Correlation Coefficient: Positive Correlation $R > 0$, Negative Correlation $R < 0$.

* Significant at $p < 0.05$.

A point-biserial correlation was run to determine the relationship between Complete Assignments on Time-Frequently and Increased or Sustained academic performance. There was a positive correlation between Complete Assignments on Time-Frequently and Increased or Sustained academic performance, which was statistically not significant ($r_{pb} = 0.09$, $n = 180$, $p = .219$).

A point-biserial correlation was run to determine the relationship between Complete Assignments on Time-Occasionally and Increased or Sustained academic performance. There was a negative correlation between Complete Assignments on Time-Occasionally and Increased or Sustained academic performance, which was statistically not significant ($r_{pb} = -0.07$, $n = 180$, $p = .333$).

A point-biserial correlation was run to determine the relationship between Complete Assignments on Time-Rarely and Increased or Sustained academic performance. There was a negative correlation between Complete Assignments on Time-Rarely and Increased or Sustained academic performance, which was statistically not significant ($r_{pb} = -0.08$, $n = 180$, $p = .313$).

RQ2. Response on the school-based factors which influence the sustainable academic performance of students at the SALCC.

The second research objective was to investigate the school-based factors that determine the sustainable academic performance of students in Sir Arthur Lewis Community College in Saint Lucia. To address this research objective, the study participants were presented with a number of questions based on the school-based factors which would influence academic performance as adopted from Walberg (1981), which include: type of school previously attended, heavy workload, new school environment, student expectations of teachers, teacher expectations, students' expectations of SALCC, teaching strategies, importance of learning resources, teacher-student interaction, student-teacher ratio and classroom facilities. A correlation analysis was conducted to determine the influence of these variables on the sustainable academic performance of students. The Point-Biserial Correlation Coefficient measures the strength of association of two variables in a single measure ranging from -1 to +1, where -1 indicates a perfect negative association, +1 indicates a perfect positive association and 0 indicates no association at all.

To analyze the qualitative data responses, the data was first filtered, themes and codes assigned, and the data entered into Microsoft Excel. The coding process was completed by assigning numerical values or frequencies to identify common themes, patterns, and associations. Descriptive statistics were used to explain the results of the experiences of the respondents. The findings for each variable are discussed below.

Table 4.21 presents an analysis of the relationship between the type of secondary school the students attended and sustainable academic performance.

Table 4.21

Type of Secondary School and Sustainable Academic Performance

	High Level	Mid-Range	Low Level
	<i>Values</i>		
r_{pb}	0.29	-0.07	-0.08
df	178	178	178
t	4.05	-2.33	-0.01
p (2-tailed)	<.001	.021	.313

Note. Independent Variable: Type of Secondary School.

*Correlation Coefficient: Positive Correlation $R > 0$, Negative Correlation $R < 0$.

* Significant at $p < 0.05$.

A point-biserial correlation was run to determine the relationship between Type of School-High Level and Improved or Sustained academic performance. There was a positive correlation between Type of School-High Level and Improved or Sustained academic performance, which was statistically significant ($r_{pb} = 0.29$, $n = 180$, $p = <.001$).

A point-biserial correlation was run to determine the relationship between Type of School-Mid Range and Improved or Sustained academic performance. There was a negative correlation between Type of School-Mid Range and Improved or Sustained academic performance, which was statistically significant ($r_{pb} = -0.17$, $n = 180$, $p = .021$).

Table 4.22 presents an analysis of the relationship between heavy workload and sustainable academic performance.

Table 4.22

Heavy Workload and Sustainable Academic Performance

	Values
r_{pb}	-0.05
df	178
t	-0.69
p (2-tailed)	.494

Note. Independent Variable: Heavy Workload.

*Correlation Coefficient: Positive Correlation $R > 0$, Negative Correlation $R < 0$.

* Significant at $p < 0.05$.

A point-biserial correlation was run to determine the relationship between Heavy workload and Improved or Sustained academic performance. There was a negative correlation between Heavy workload and Improved or Sustained academic performance, which was statistically not significant ($r_{pb} = -0.05$, $n = 180$, $p = .494$).

Table 4.23 presents an analysis of the relationship between the new school environment and sustainable academic performance.

Table 4.23

New School Environment and Sustainable Academic Performance

	Values
r_{pb}	0.09
df	178
t	1.17
p (2-tailed)	.245

Note. Independent Variable: New School Environment.

*Correlation Coefficient: Positive Correlation $R > 0$, Negative Correlation $R < 0$.

* Significant at $p < 0.05$.

A point-biserial correlation was run to determine the relationship between New School Env and Improved or Sustained academic performance. There was a positive correlation between New School Environment and Improved or Sustained academic performance, which was statistically not significant ($r_{pb} = 0.09$, $n = 180$, $p = .245$).

Table 4.24 presents an analysis of the relationship between student expectations of teachers and sustainable academic performance.

Table 4.24

Student Expectations of Teachers and Sustainable Academic Performance

	Values
r_{pb}	-0.03
df	178
t	-0.46
p (2-tailed)	.649

Note. Independent Variable: Student Expectations of Teachers.

*Correlation Coefficient: Positive Correlation $R > 0$, Negative Correlation $R < 0$.

* Significant at $p < 0.05$.

A point-biserial correlation was run to determine the relationship between Your Expectations of Teachers and Improved or Sustained academic performance. There was a negative correlation between Your Expectations of Teachers and Improved or Sustained academic performance, which was statistically not significant ($r_{pb} = -0.03$, $n = 180$, $p = .649$).

Table 4.25 presents an analysis of the relationship between teacher expectations and sustainable academic performance.

Table 4.25

Teacher Expectations and Sustainable Academic Performance

	Values
r_{pb}	0
df	178
t	0.01
p (2-tailed)	.995

Note. Independent Variable: Teacher Expectations.

*Correlation Coefficient: Positive Correlation $R > 0$, Negative Correlation $R < 0$.

* Significant at $p < 0.05$.

A point-biserial correlation was run to determine the relationship between Teacher Expectations and Improved or Sustained academic performance. There was a positive correlation between Teacher Expectations and Improved or Sustained academic performance, which was statistically not significant ($r_{pb} = 0$, $n = 180$, $p = .995$).

It must be noted from the data above that there was an equal decline in the respondents' performance. Those who said "Yes", showed the highest level of having a positive impact because they had sustainable academic performance. While respondents said "No", the teachers' expectations had no significant impact on them.

Table 4.26 presents an analysis of the relationship between student expectations of SALCC and sustainable academic performance.

Table 4.26

Student Expectations of SALCC and Sustainable Academic Performance

	Values
r_{pb}	0.01
df	178
t	0.15
p (2-tailed)	.878

Note. Independent Variable: Student Expectations of SALCC.

*Correlation Coefficient: Positive Correlation $R > 0$, Negative Correlation $R < 0$.

* Significant at $p < 0.05$.

A point-biserial correlation was run to determine the relationship between Expectations of SALCC and Improved or Sustained academic performance. There was a positive correlation between Expectations of SALCC and Improved or Sustained academic performance, which was statistically not significant ($r_{pb} = 0.01$, $n = 180$, $p = .878$).

Table 4.27 presents an analysis of the relationship between teaching strategies and sustainable academic performance.

Table 4.27

Teaching Strategies and Sustainable Academic Performance

	Values
r_{pb}	-0.05
df	178
t	-0.61
p (2-tailed)	.544

Note. Independent Variable: Teaching Strategies.

*Correlation Coefficient: Positive Correlation $R > 0$, Negative Correlation $R < 0$.

* Significant at $p < 0.05$.

A point-biserial correlation was run to determine the relationship between Teaching Methods and Improved or Sustained academic performance. There was a negative correlation between Teaching Methods and Improved or Sustained academic performance, which was statistically not significant ($r_{pb} = -0.05$, $n = 180$, $p = .544$).

When asked about the common challenges confronting students entering the SALCC from secondary school, 32% of guidance counselors, 67% of current students and 36% of graduates cited that the teaching methods used at SALCC was a major challenge to what they were accustomed to at secondary school.

Thus, an observation was conducted with a sample of 30 secondary schools to assess the teaching strategies implemented at the secondary school level. During the observation, while 33.3% of teachers presented a written lesson plan, 100% explained the lesson objectives with 70%

explaining the teaching strategies and forms of assessment for the lesson. All teachers had good content knowledge, with 96% of teachers adapting the content to the ability of learners in the subject area. The teaching methods and forms of assessment used were generally effective. The learners' ability to understand the content taught was somewhat effective (46%) and very satisfactory (54%). The teachers generally ensured that the learners understood the content taught before moving on with the lesson. The teacher-student interaction was somewhat satisfactory (6%) and very satisfactory (94%). The teachers ensured that they answered the questions posed by the learners. In terms of the teachers' resourcefulness during the lesson 56% were resourceful while 44% were not resourceful. Students were not encouraged to work collaboratively (80%). The overall execution of the lesson was effective (83%), somewhat effective (3%) and very effective (14%).

Table 4.28 presents an analysis of the relationship between the importance of learning resources and sustainable academic performance.

Table 4.28

Importance of Learning Resources and Sustainable Academic Performance

	Values
r_{pb}	-0.06
df	178
t	-0.78
p (2-tailed)	.436

Note. Independent Variable: Importance of Learning Resources.

*Correlation Coefficient: Positive Correlation $R > 0$, Negative Correlation $R < 0$.

* Significant at $p < 0.05$.

A point-biserial correlation was run to determine the relationship between Lack of Res and Improved or Sustained academic performance. There was a negative correlation between Lack of Res and Improved or Sustained academic performance, which was statistically not significant ($r_{pb} = -0.06$, $n = 180$, $p = .436$).

Table 4.29 presents an analysis of the relationship between teacher-student interaction and sustainable academic performance.

Table 4.29

Teacher-Student Interaction and Sustainable Academic Performance

	Fairly Good	Good	Excellent
	<i>Values</i>		
r_{pb}	-0.08	0.12	-0.02
df	178	178	178
t	-1.08	1.56	-0.25
p (2-tailed)	.28	.124	.802

Note. Independent Variable: Teacher-Student Interaction

*Correlation Coefficient: Positive Correlation $R > 0$, Negative Correlation $R < 0$

* Significant at $p < 0.05$

A point-biserial correlation was run to determine the relationship between Teacher Interaction-Fairly Good and Improved or Sustained academic performance. There was a negative correlation between Teacher Interaction-Fairly Good and Improved or Sustained academic performance, which was statistically not significant ($r_{pb} = -0.08$, $n = 180$, $p = .28$).

A point-biserial correlation was run to determine the relationship between Teacher Interaction-Good and Improved or Sustained academic performance. There was a positive correlation between Teacher Interaction-Good and Improved or Sustained academic performance, which was statistically not significant ($r_{pb} = 0.12$, $n = 180$, $p = .124$).

A point-biserial correlation was run to determine the relationship between Teacher Interaction-Excellent and Improved or Sustained academic performance. There was a negative

correlation between Teacher Interaction-Excellent and Improved or Sustained academic performance, which was statistically not significant ($r_{pb} = -0.02$, $n = 180$, $p = .802$).

An analysis of the qualitative data reveal that those respondents who stated “No interaction”, the issues cited included, but not limited to, “some classes but no interaction” 50%, “some teachers are helpful while others are not” 18%, “some teachers ignore you” 9%, “not all interactions are pleasant” 7%, “some teachers did not interact much” 5% and “not comfortable interacting with teachers” 2%. The assessment from the respondents seem to suggest that teacher interaction was fairly good to excellent and reflected positively in their academic performance. One cannot conclude that there was any negative or positive impact on their academic performance.

Table 4.30 presents an analysis of the relationship between student-teacher ratio and sustainable academic performance.

Table 4.30

Student-Teacher Ratio and Sustainable Academic Performance

	Small Classes 15-25	Large Classes 26-35
	<i>Values</i>	
r_{pb}	-0.16	0.16
df	178	178
t	-2.1	2.1
p (2-tailed)	.037	.037

Note. Independent Variable: Student-Teacher Ratio.

*Correlation Coefficient: Positive Correlation $R > 0$, Negative Correlation $R < 0$.

* Significant at $p < 0.05$.

A point-biserial correlation was run to determine the relationship between Larger Student-Teacher Ratio-15-25 and Improved or Sustained academic performance. There was a negative correlation between Larger Student-Teacher Ratio-15-25 and Improved or Sustained academic performance, which was statistically significant ($r_{pb} = -0.16$, $n = 180$, $p = .037$).

A point-biserial correlation was run to determine the relationship between Larger Student-Teacher Ratio-26-35 and Improved or Sustained academic performance. There was a positive correlation between Larger Student-Teacher Ratio-26-35 and Improved or Sustained academic performance, which was statistically significant ($r_{pb} = 0.16$, $n = 180$, $p = .037$).

The qualitative data revealed the following impacts, the ratio had on their learning experiences. 62% indicated that it had no impact, 12% indicated that their needs were not met, 7%

indicated their preference for smaller classes, 6% indicated no impact and 5% a positive impact. Of “less significant” included, but not limited to, “preference for large classes” and “negative impact” recorded 1% exclusively. It must be noted that when lecturers were asked if there were any issues with class size in terms of student to teacher ratio 70% said “Yes” and 30% said “No”. They provided similar explanations where 75% indicated that the students’ needs are not met and 13% indicated that the number of students outweigh the availability of learning resources and 13% indicated that they had no issues with the class size.

Students from programs with a student-teacher ratio of 15-25 recorded the least grade improvement and largest decline in their academic performance. On the other hand, students within programs with student-teacher ratio of 26-35 recorded the highest improvement and were able to sustain their academic performance and had the lowest decline in academic performance. It is interesting to note that the students from the smaller groups had challenges improving, sustaining and experienced the greatest decline in their academic performance, while students from the larger groups were able to improve and sustain their academic performance higher than the 15-25 groups and experienced the least decline in their academic performance.

Table 4.31 presents an analysis of the relationship between classroom facilities and sustainable academic performance.

Table 4.31

Classroom Facilities and Sustainable Academic Performance

	Excellent	Very Good	Good	Fair	Poor
	<i>Values</i>				
r_{pb}	0.08	-0.05	-0.01	-0.1	0.2
df	178	178	178	178	178
t	1.12	-0.69	-0.1	-0.32	2.66
p (2-tailed)	.266	.491	.921	.189	.008

Note. Independent Variable: Classroom Facilities.

*Correlation Coefficient: Positive Correlation $R > 0$, Negative Correlation $R < 0$.

* Significant at $p < 0.05$.

A point-biserial correlation was run to determine the relationship between Classroom Facilities-Excellent and Improved or Sustained academic performance. There was a positive correlation between Classroom Facilities-Excellent and Improved or Sustained academic performance, which was statistically not significant ($r_{pb} = 0.08$, $n = 180$, $p = .266$).

A point-biserial correlation was run to determine the relationship between Classroom Facilities-Very Good and Improved or Sustained academic performance. There was a negative correlation between Classroom Facilities-Very Good and Improved or Sustained academic performance, which was statistically not significant ($r_{pb} = -0.05$, $n = 180$, $p = .491$).

A point-biserial correlation was run to determine the relationship between Classroom Facilities-Good and Improved or Sustained academic performance. There was a negative

correlation between Classroom Facilities-Good and Improved or Sustained academic performance, which was statistically not significant ($r_{pb} = -0.01$, $n = 180$, $p = .921$).

A point-biserial correlation was run to determine the relationship between Classroom Facilities-Fair and Improved or Sustained academic performance. There was a negative correlation between Classroom Facilities-Fair and Improved or Sustained academic performance, which was statistically not significant ($r_{pb} = -0.1$, $n = 180$, $p = .189$).

A point-biserial correlation was run to determine the relationship between Classroom Facilities-Poor and Improved or Sustained academic performance. There was a positive correlation between Classroom Facilities-Poor and Improved or Sustained academic performance, which was statistically significant ($r_{pb} = 0.2$, $n = 180$, $p = .008$).

Those who considered classroom facilities as poor, their decline in academic performance was the lowest, thus saying that classroom facilities did not impact their academic performance which is statistically significant.

When lecturers were asked whether they had any issues with classroom location and infrastructure in terms of lighting, layout, location, air circulation and visual aids, 81.80% indicated that they had issues with air circulation, 72.70% the size, 63.60% lighting, 54.50% visual aids and 36.40% location.

Table 4.32 presents an analysis of the relationship between classroom facilities – other and sustainable academic performance.

Table 4.32

Classroom Facilities Response – Other and Sustainable Academic Performance

	Mode of Delivery	Organization	Workload	School Resources	None
	<i>Values</i>				
r_{pb}	0.11	-0.09	-0.09	0.02	-0.03
df	178	178	178	178	178
t	1.44	-1.19	-1.19	0.31	-0.4
p (2-tailed)	.151	.236	.236	.754	.689

Note. Independent Variable: Classroom Facilities – Other.

*Correlation Coefficient: Positive Correlation $R > 0$, Negative Correlation $R < 0$.

* Significant at $p < 0.05$.

A point-biserial correlation was run to determine the relationship between Other-Mode of delivery and Improved or Sustained academic performance. There was a positive correlation between Other-Mode of delivery and Improved or Sustained academic performance, which was statistically not significant ($r_{pb} = 0.11$, $n = 180$, $p = .151$).

A point-biserial correlation was run to determine the relationship between Other-Organization and Improved or Sustained academic performance. There was a negative correlation between Other-Organization and Improved or Sustained, which was not statistically significant ($r_{pb} = -0.09$, $n = 180$, $p = .236$).

A point-biserial correlation was run to determine the relationship between Other-Organization and Improved or Sustained academic performance. There was a negative correlation

between Other-Organization and Improved or Sustained academic performance, which was not statistically significant ($r_{pb} = -0.09$, $n = 180$, $p = .236$).

A point-biserial correlation was run to determine the relationship between Other-School Resources and Improved or Sustained academic performance. There was a positive correlation between Other-School Resources and Improved or Sustained academic performance, which was not statistically significant ($r_{pb} = 0.02$, $n = 180$, $p = .754$).

A point-biserial correlation was run to determine the relationship between Other-None and Improved or Sustained academic performance. There was a negative correlation between Other-None and Improved or Sustained academic performance, which was not statistically significant ($r_{pb} = -0.03$, $n = 180$, $p = .689$).

Table 4.33 presents the responses of the lectures' satisfaction and the academic performance system of the SALCC.

Table 4.33

Lecturers' Satisfaction with Academic Performance System

Level of Satisfaction	Frequency	Overall % Response
Yes	6	55
No	5	45
Total	11	100

Note. Lecturer responses on the level of satisfaction with academic performance system.

When lecturers were asked whether they were satisfied with the established academic performance assessment systems 55% of them said "Yes" while 45% said "No". When the qualitative data was analyzed to examine lecturers' reasons for their responses, those who

indicated “No” highlighted issues which accounted for 20%, such as the needs for standardization and accountability by teachers, need to test student ability and transferability and not knowledge recall, disparity in quality and quantity of assessments among lecturers in the same subject area, the pass mark should increase from 40% to 50% to promote learning and the need to establish a proper performance assessment system.

When lecturers were asked to provide recommendations for the changes in the performance assessment systems, 30% of respondents indicated that there is a need for standardization and accountability by lecturers. Other responses which account for 10% respectively, include but are not limited to, varied modes of assessments, results should inform training needs of lecturers and change in pass mark to 50%.

The SALCC respondents (lecturers) from the data are split on whether the assessment system has been adequate or not. Fifty-four percent considered the system inadequate. This can be considered significant enough to impact academic performance at the SALCC, thereby requiring some form of intervention.

Table 4.34 presents the responses of the lectures' perception on the acceptability of the entry requirements of the SALCC.

Table 4.34

Lecturers' Perception on Acceptability of the Entry Requirements

Level of Satisfaction	Frequency	Overall % Response
Yes	6	55
No	5	45
Total	11	100

Note. Lecturer responses on their perception of the acceptability of the SALCC entry requirements.

When lecturers were asked whether they thought the entry requirements for college was acceptable 55% said "Yes" and 45% said "No". When the qualitative data was analyzed to understand the reasons for the lecturers' perceptions, those who responded "Yes", 66% indicated that it is acceptable, 17% indicated that students' level does not seem to match the qualification that they supposedly attained and 17% indicated that it allows for the further development of courses. However, their reasons do not support their responses.

When the qualitative data was analyzed to ascertain the reasons why respondents indicated "No", 25% indicated that it does not allow for a smooth transition in the courses at the College, 25% indicated that it is not an accurate measure of student ability to function at College level, 25% stated an entry level exam should be included and students are not adequately prepared for College level work, 25% highlighted the entry requirements at SALCC has been lowered over the years,

25% stated that students who did not possess the required skills nor the academic requirements were allowed to enroll in the programs.

The above data from the respondents (lecturers) highlight that the entry requirements to SALCC is not understood or accepted by all lecturers who are key stakeholders in the operations of the SALCC. While 55% provided support for the entry requirements, their reasons for supporting the system did not support their “Yes” response. Their response is suggesting improvement.

Table 4.35 presents the responses of the lectures’ perception of the students’ level of preparedness for the internship of the SALCC.

Table 4.35

Lecturers’ Perceptions of Students’ Preparedness for the Internship Program

Level of Preparedness	Frequency	Overall % Response
Yes	9	90
No	1	10
Total	10	100

Note. Lecturer responses on their perception of student preparedness for internship.

Lecturers were asked whether the students are prepared for the internship program. Nine indicated “Yes” and one indicated “No”. When analyzing the qualitative data for reasons for their responses, the lecturers who responded negatively indicated reasons such as the students cannot transfer knowledge to the workplace. They highlighted that although they are apprehensive, the students do well and the department hosts weekly internship workshops for students, while those who said “Yes” did not provide any responses to support their response. One cannot reasonably

arrive at any conclusions from this except to say that the majority of lecturers are happy with the students' preparedness.

Table 4.36 presents the responses of the employers' satisfaction with students on internship.

Table 4.36

Employers' Satisfaction with Students on Internship

Level of Satisfaction	Frequency	Overall % Response
Yes	4	80
No	1	20
Total	5	100

Note. Employer responses on their satisfaction with students on internship.

Five employers participating in the SALCC internship program indicated that they were satisfied with the students' performance, while one stated that they were not satisfied at all. When the qualitative data was analyzed for reasons why the employers were dissatisfied, they indicated that the students lacked soft skills, that they were unwilling to learn, the students were only qualified for entry level job market, students poor work ethic and students were expected to be more independent. There was no response to support the responses for those who said "Yes".

Additionally, from a document analysis conducted on internship assessment forms investigating some of the challenges experienced over the past four years on students on internship, most prominently, 100% indicated that the students lacked soft skills, 40% indicated that the students lacked focus, they showed no adherence to workplace policies and their inability to transfer learning to the workplace. Of less significance were poor interviews, poor job application

and cv, too much time to train students, unprepared for the work environment, inability to work independently, poor writing skills and lack of initiative and motivation all accounting for 20%.

When employers were asked to rate the average student's preparedness for the work environment in terms of their knowledge, soft skills and skills set, they confirmed that soft skills rated the lowest on the criteria with of 4/10 with 10 being excellent. When rated by knowledge and skillset rating a high rating of 7/10 was provided.

From the data above, it can be seen that the lecturers' views coincided with the employers' opinions on the students' level of preparedness for students on internship but with one dissent. One can conclude that the quality of the persons participating in the internship program are primarily acceptable to both lecturers and employers. Moreover, the data is skewed because only those who provided negative responses provided responses to support their answers.

Table 4.37 presents the responses of the graduates' opinion on the adequacy of support received at the SALCC.

Table 4.37

Graduates' opinion on adequacy of support

Graduates' Opinion	Frequency	Overall % Response
Yes	115	28.4
No	289	71
Total	404	100

Note. Graduates' response on their opinion on adequacy of support.

When graduates were asked why they had the support and necessary system to assist them through college life 71.6% said no, 28.4% said yes. Of those who said "No", they indicated the following missing elements which include, but are not limited to, 37% "Support should be provided", 16% "Someone to deal with students' affairs", 14% "Poor teacher-student interaction", 9% "There was inadequate support", "Unaware of support systems", 4% "Things take too long to be resolved" and "Hire better teachers".

However, when lecturers were asked whether they were satisfied with the support and assistance given to below-average students (Appendix 1, Table 58) 91% said "Yes" and 9% said "No". Those who said "Yes" did not provide a response. When lecturers were asked what can be done to assist (Appendix 1, Table 59), responses included, but are not limited to, 20% indicated that there should be "More tutorial groups", 5% "Assess the workload", a "Mentoring program should be established" 5% and "Increase the role of the students' services unit" 5%. When the Students Services Unit was asked about the current policies/systems employed at the SALCC,

aimed at assisting students in adjusting to post-secondary school life, their response was a resounding “No”. However, there was an indication that there were a few initiatives to assist in that regard such as the annual orientation process. When asked to explain the orientation process the representative from the Students Services Unit provided the following qualitative response:

“Orientation involves students reporting to the respective department that they have gained entry into, on a specified date. Brief discussions with representatives of the respective department; students given the courses that they need to pursue for the semester and advising them to register for their corresponding courses via the student information system. This is in effect academic advising and not orientation. Additionally, the timelines for the orientation process are usually unrealistic to be effective”.

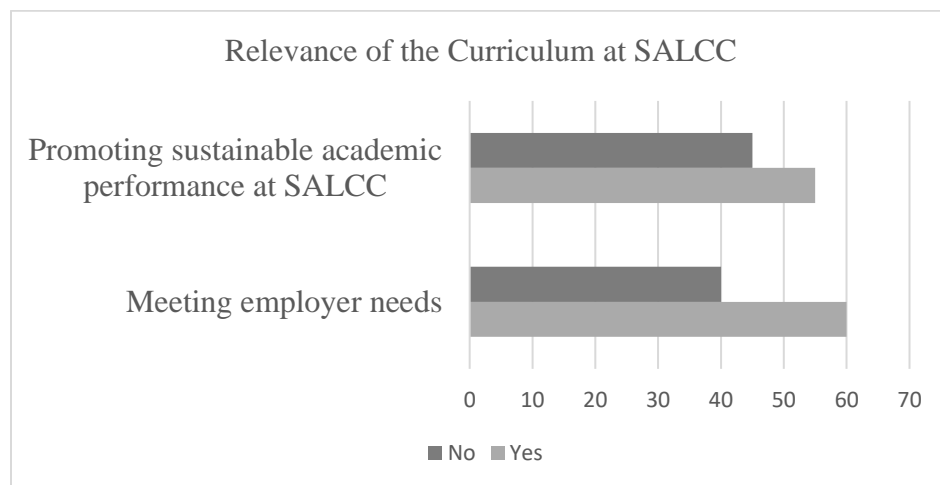
When lecturers were asked to rate the current orientation program at the SALCC 90.9% indicated that it was somewhat helpful, while 9.10% indicated that it was not helpful at all.

When the representative from the students’ services unit was asked what policy, if any, exists in assisting students with their SALCC school experience the response was a resounding there is no such policy.

Figure 4.3 presents the responses of the lecturers and employers on the relevance of the SALCC curriculum.

Figure 4.1

Relevance of the Curriculum at SALCC



Note. *Lecturer responses on their opinion on the relevance of curriculum.

*Employer responses on curriculum meeting employee needs.

When lecturers were asked whether they thought that the current curriculum influences sustainable academic performance, 55% said “Yes” and 45% said “No”. Lecturers were asked to advise ways in which the curriculum can influence sustainable academic performance. When analyzing the qualitative data for their responses each accounted for 20% of respondents: Always room for improving graduate numbers, should be updated to meet industry needs, students should take more responsibility for their learning, students should be encouraged to be more analytical and allow a more flexible path for completing a program.

When employers were asked whether the current curriculum at the SALCC is meeting the needs of employers, 60% said “Yes” and 40% said “No”. When analyzing the qualitative data for the reasons for the employers’ responses who said “Yes”, the following responses were provided:

17% said that SALCC is the main source of entry level labour, limited local competition, 17% of the teachers participated in internship process, 17% said SALCC should be up to date with industry needs, 17% said SALCC is open to improvement, 17% said there is an open line of communication with the SALCC. Of those employers who responded “No” they highlighted the following responses which account for 25%. They felt that there was a disconnect with SALCC and industry needs, SALCC focus is on students passing examinations, the need to work more with employers to find areas of weakness and improvement as well as instrument to gather industry needs data.

Generally, both lecturers of the SALCC and employer participants in the SALCC internship program agree that they are satisfied with the SALCC curriculum. It is notable that both lecturers and employer participations in the SALCC internship program have highlighted the need for improvement.

Table 4.38 presents the responses of the secondary school teachers on the curriculum in preparing students for the CSEC examinations.

Table 4.38

Opinions of Secondary School Teachers on Secondary School Curriculum in Preparing Students for CSEC Examinations

Level of Satisfaction	Frequency	Overall % Response
Extremely Satisfied	4	13
Somewhat Satisfied	21	70
Very Satisfied	5	17
Total	30	100

Note. Secondary School Teachers' responses on curriculum in preparing students for CSEC examinations.

Secondary school teachers were asked about their level of satisfaction with the curriculum at the secondary school level when preparing students for the CSEC examinations, 70% indicated somewhat satisfied, 13% extremely satisfied and 17% very satisfied. When the qualitative data was analyzed for reasons for their responses, respondents provided the following which included, but not limited to, 30% indicated that it prepares students to pass examinations, 17% too much theory, 13% not enough time to cover curriculum, 10% too broad, 10% it needs to be reviewed, 10% it teaches basic skills and 3% it does not prepare them for further education.

The data above revealed that although the secondary school teachers registered satisfaction with the curriculum, what the data is saying is that there is room for improvement.

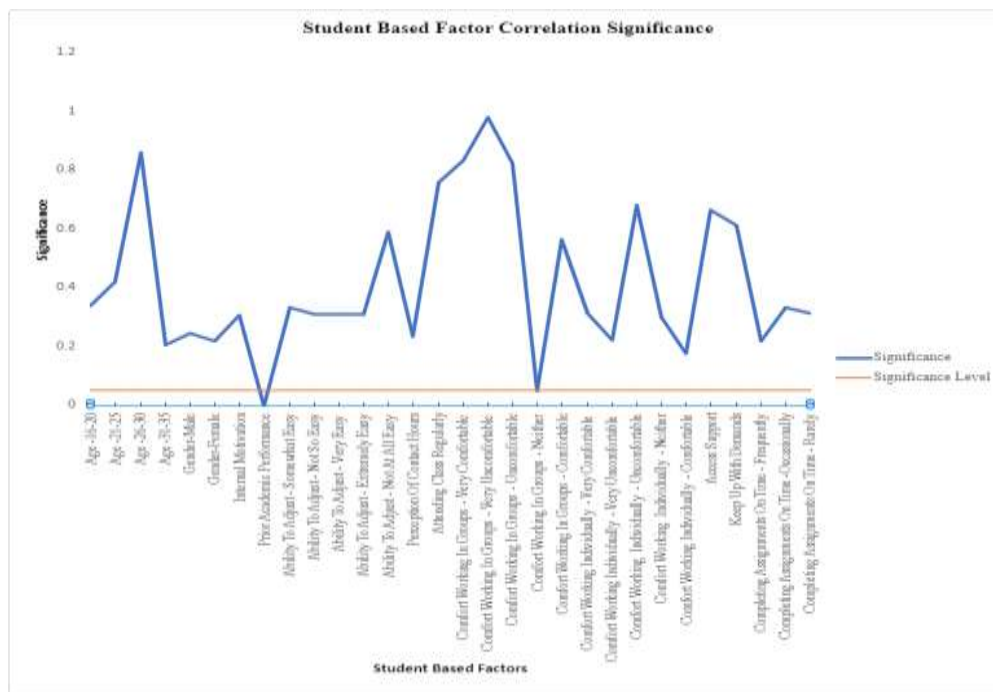
RQ3. Response on the extent of the influence of student-based factors on the sustainable academic performance of students at the SALCC.

The second research objective was to establish the extent to which the student-based factors influence the sustainable academic performance of students in Sir Arthur Lewis Community College in Saint Lucia. To address this research objective a logistic regression analysis was conducted to establish which student-based factors had the most significant influence on sustainable academic performance of students.

Figure 4.2 provides a logistic regression analysis on the extent of student-based factors to identify which factors were the most significant.

Figure 4.2

Logistic Regression Analysis on Significant of Student-Based Factors and Sustainable Academic Performance



Note. *Independent Variable: School-based Factors

*Dependent Variable: Sustainable Academic Performance

*P-value of <.001 indicates statistical significance.

The logistic regression table has revealed Prior Academic Performance as the only statistically significant variable from the following calculations:

Table 4.39*Chi-Squared Test*

Chi2	df	P
53.9	1	<.001

Table 4.40*Model Summary*

-2 Log-Likelihood	Cox & Snell R ²	Nagelkerke R ²	McFadden's R ²
185.74	0.26	0.35	0.22

Table 4.41*Model*

	Coefficient B	Standard error	z	p	Odds Ratio	95% conf. interval
CSEC Simple Numeric GPA	-2.28	0.36	6.35	<.001	0.1	0.05 - 0.21
Constant	8.56	1.31	6.51	<.001		

Logistic regression analysis was performed to examine the influence of CSEC Simple Numeric GPA on variable Increased or Sustained to predict the value "1". Logistic regression analysis shows that the model as a whole is significant ($\text{Chi}^2(1) = 53.9$, $p < .001$, $n = 180$).

The coefficient of the variable CSEC Simple Numeric GPA is $b = -2.28$, which is negative. This means that an increase in CSEC Simple Numeric GPA is associated with a decrease in the probability that the dependent variable is "1". The p-value of $<.001$ indicates that this influence is statistically significant. The odds Ratio of 0.1 indicates that one unit increase of the variable CSEC Simple Numeric GPA will increase the odds that the dependent variable is "1" by 0.1 times.

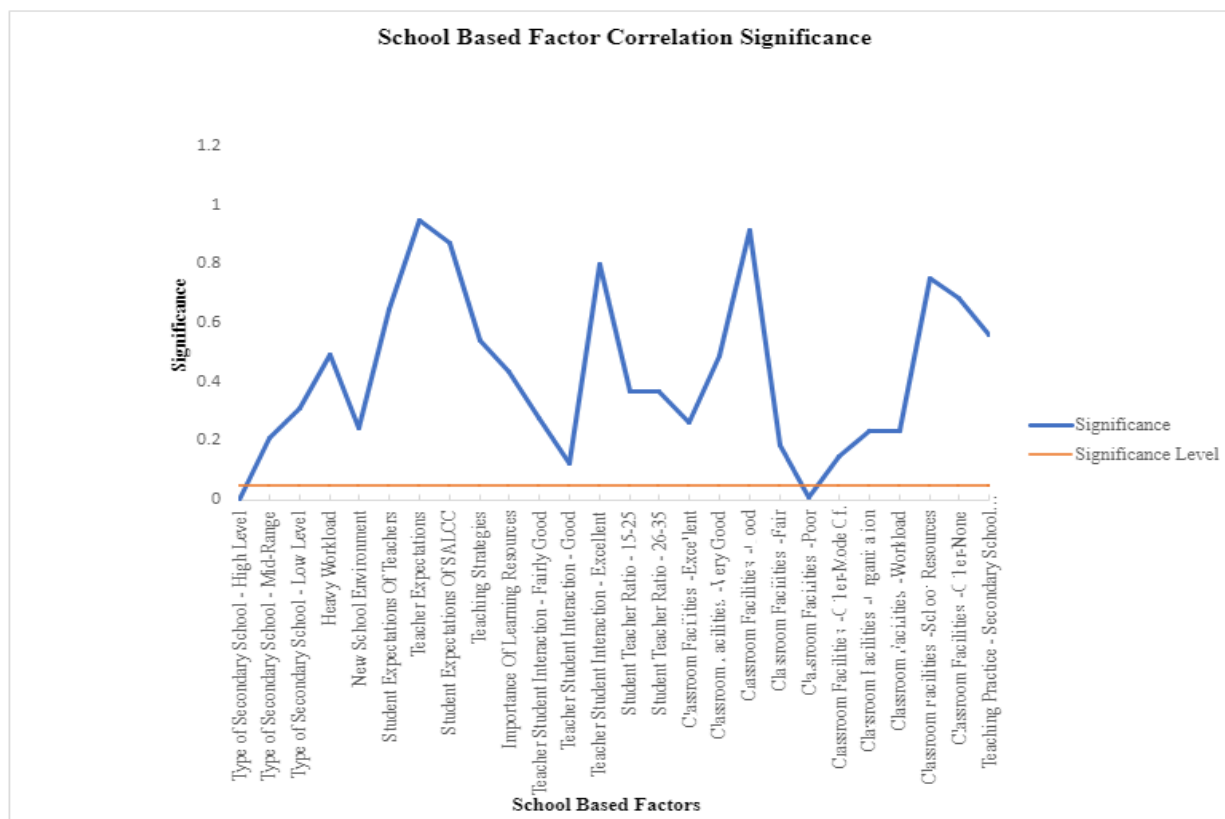
RQ4. Response on the extent of the influence of school-based factors on the sustainable academic performance of students at the SALCC.

The fourth research objective was to establish the extent to which the school-based factors influence the sustainable academic performance of students in Sir Arthur Lewis Community College in Saint Lucia. To address this research objective a logistic regression analysis was conducted to establish which school-based factors had the most significant influence on sustainable academic performance of students.

Figure 4.3 provides a logistic regression analysis on the extent of school-based factors to identify which factors were the most significant.

Figure 4.3

Logistic Regression Analysis on Significant of School-Based Factors and Sustainable Academic Performance



Note. *Independent Variable: School-based Factors.

*Dependent Variable: Sustainable Academic Performance.

*P-value of <.001 indicates statistical significance.

The logistic regression table has revealed type of school-high level and classroom facilities-poor as the only statistically significant variable from the following calculations:

Table 4.42

Chi-Square Test

Chi2	df	p
27.53	2	<.001

Table 4.43*Model Summary*

-2 Log-Likelihood	Cox & Snell R ²	Nagelkerke R ²	McFadden's R ²
212.11	0.14	0.19	0.11

Table 4.44*Model*

	Coefficient B	Standard error	z	p	Odds Ratio	95% conf. interval
Type of School-High Level	1.43	0.34	4.17	<.001	4.17	2.13 – 8.17
Classroom Facilities-Poor	2.65	1.06	2.5	.012	14.19	1.78 - 113.2
Constant	-0.25	0.21	1.18	.237		

Logistic regression analysis was performed to examine the influence of Type of School-High Level and Classroom Facilities-Poor on variable Improved or Sustained academic performance to predict the value "1". Logistic regression analysis shows that the model as a whole is significant ($\text{Chi}^2(2) = 27.53, p < .001, n = 180$).

The coefficient of the variable Type of School-High Level is $b = 1.43$, which is positive. This means that if the value of the variable is Type of School-High Level, the probability of the dependent variable being "1" increases. The p-value of $<.001$ indicates that this influence is statistically significant. The odds ratio of 4.17 means that if the variable is Type of School-High Level, the probability that the dependent variable is "1" increases by 4.17 times.

The coefficient of the variable Classroom Facilities-Poor is $b = 2.65$, which is positive. This means that if the value of the variable is Classroom Facilities-Poor, the probability of the dependent

variable being "1" increases. The p-value of .012 indicates that this influence is statistically significant. The odds ratio of 14.19 means that if the variable is Classroom Facilities-Poor, the probability that the dependent variable is "1" increases by 14.19 times.

Evaluation of Findings

This section provides the findings and discussions on the research questions which were developed in Chapter One to enable the writer to investigate the influence of the school and student-based factors on sustainable academic performance of students at the Sir Arthur Lewis Community College in Saint Lucia. The conceptual framework used in this study is Wahlberg's (1981) Model of Educational Productivity to best assist in identifying the student and school-based factors which would have an influence on the learners' ability to sustain their academic performance. Researchers, such as Yusuf et al. (2018), have used Wahlberg's (1981) Educational Production Theory to identify the factors influencing learners' academic success at college. The advantage of using Wahlberg's (1981) Model of Educational Productivity is that although it is only effective when the context is understood, it allowed the researcher the latitude to identify the best-known consideration of independent variables (school and student-based factors) which influence the sustainable academic performance (dependent variable) of learners at the SALCC.

RQ1. What are the student-based factors that determine the academic performance of students at the SALCC?

Student Age and Sustainable Academic Performance

It was important to understand whether age can determine the academic performance of students at the SALCC. There are two categories of student learners at the SALCC. Traditional learners are students within the age range of 16-18 and are graduates from the secondary school system, successful at the CSEC examinations and met the entry requirement for study at the SALCC. The non-traditional students who are 19 years old and above who, after years of graduating from secondary school, opted to resume studies later in life or may have been gainfully employed. Overall, the data highlights significant gaps between age groups based on their ability to improve, sustain, or decline in their academic performance. The data revealed that there was a positive correlation between learners of the age ranges of 16-20 and 26-30, while age ranges 21-25 and 31-45 revealed a negative correlation. Moreover, it can be seen from the findings that there are academic variances between adolescent respondents and adult respondents on the sustainability of their academic performance, with adolescent respondents being able to achieve the highest sustainability and the lowest decline in their academic performance particularly within the age ranges of 16-20. While some adult learners showed a huge improvement in their sustainable academic performance, others saw a further decline in their academic performance. The data also implies that there can be attributes within age groups which can influence the students' academic performance, for example, a student's maturity age as opposed to their biological age on the level of preparedness to study at this level. One can, therefore, conclude that a student's age can be seen as a variable that can have either a positive or negative influence on a student's sustainable

academic performance. The influence of age on academic performance is confirmed by writers such as Palacios et. al. (2018) as having an indirect impact on academic performance.

Gender and Sustainable Academic Performance

From the data on gender, the findings show that the “Female” respondents performed better than their “Male” counterparts. The “Female” students had overall improvement in their GPA, and they showed a greater percentage of sustainable GPA. They also reflected the lowest decline in their GPA. Thus, confirming the view of writers such as Ranjeeth et al. (2020) who posit that female learners outperform their male counterparts. Shoaib and Ullah (2019) also agree that, academically, male students are not better than female students. This view is consistent, in that what obtains at SALCC, is reflected nationally within the education system in St. Lucia. Thus, the findings revealed a negative correlation between “Male” students though not statistically significant. While there was a positive relationship between gender as it relates to females, it was not statistically significant. One can, therefore, conclude that while there may be break-through cases of “Male” students excelling above the norm, which makes up a very small percentage of the male population, gender can be viewed as a factor that can positively or negatively influence the sustainable academic performance of students. A study by Digun et al. (2015) reveals that gender has no significant influence on academic performance. In this case, according to the research findings, this theory holds.

Motivation and Sustainable Academic Performance

Bhatt and Bahadur (2020), in their writings, reveal that motivation is the most significant factor to success. When assessing motivation, the writer sought not to analyze responses with smaller percentages because they were not significant responses to reasonably make a conclusion coming from these responses. Those who had preference for subject, career choice, to gain

knowledge, influence of friends and entrepreneurship were popular motivational factors among students. It was surprising to note that students who preferred the subject chosen showed the greatest decline in their sustainable academic performance. These findings reveal that there is a positive relationship between a student's level of motivation or motivational factor and sustainable academic performance though in this case was not statistically significant. While one cannot agree with Bhatt and Bahadur (2020) that motivation is the most significant in this situation, the degree of significance would be dependent on the motivation factors put forward by the respondents under investigation as well as the degree of influence of other factors which would impact sustainable academic performance, be it student-based or school-based.

Prior Academic Performance and Current Academic Performance

The findings reveal that there was a high negative correlation between prior academic performance and sustainable academic performance. Thus, the students' prior academic performance at the CSEC examination was comparable with that of what was obtained at the SALCC when it came to obtaining a grade A. However, their performance was better at the CSEC examination than their academic performance at SALCC when it came to obtaining a grade B or C. When it came to obtaining a grade 'D', the students' performance at SALCC further declined. One can imply that, perhaps, respondents with the higher GPAs at the CSEC examination assumed that they had the capacity to learn and study at the tertiary level and, consequently, they were able to be less dependent on teacher-led instruction. While writers such as Yusuf et al. (2018) have posited that prior academic performance is the most fundamental predictor of academic performance of students at the tertiary level of education, it must be noted that a student's previous GPA can be because of many different variables which would require further study at the secondary level of education. These findings from this study are also consistent with the views of

graduates who provided a positive rating of their prior academic performance at secondary school to what they experienced at the SALCC. Thus, prior academic performance can determine the sustainable academic performance of students at the SALCC, although there may be situations where there may be a significant gap between prior academic performance and current academic performance. However, these findings are not in keeping with the writings of Adewale and Adhuze (2014, as cited in Bafeto, 2021) who found, in their own study, that the entry qualifications of learners insignificantly contributed to their academic performance in architectural studies. However, in this case student there was a significant association between prior academic performance and sustainable academic performance.

Learner Ability and Sustainable Academic Performance

The foundation set in the formative years of learners' development can have either a positive or an adverse impact on their academic readiness as they transition from one level of education to another. The findings from the study revealed that there was a positive correlation between ability to adjust and sustainable academic performance, however, it was statistically not significant. Based on the findings, most students found the transition from secondary school to the SALCC not easy and, thus, experienced the highest decline in their sustainable academic performance, while respondents who found their transition somewhat easy were better able to sustain their academic performance. Students who found the transition not easy or somewhat easy formed a major part of the sample of students. The findings coming out of these two groups are consistent with the opinions of lecturers of the SALCC, secondary school teachers and graduates who all posit that students were not adequately prepared for study at the tertiary level of education. It must be noted, however, that students who found the transition very easy had the highest improvement in their grades but the lowest ability to sustain their grades. Locke and Lothan (2019) argue that learners who perform exceptionally well at high school, with a high GPA, were more

apt to be in a better position to transfer these learning experiences more desirably thereby enabling them to maintain a high grade-point average (GPA) at the end of their first year of college. One can conclude that learner ability can influence sustainable academic performance.

Self-Regulatory Learning Strategies and Sustainable Academic Performance

Printrich (2003, as cited in Irvine et al., 2019) defines self-regulation as strategies employed by students to control their learning process as well as regulate their cognition, thereby having a positive influence on academic performance. It was necessary, in this study, to evaluate the self-regulatory learning strategies of students and their related influence on the sustainability of the academic performance of students at the SALCC. When it comes to the variable of access to support, there was a negative correlation with sustainable academic performance. The above data provided by students, lecturers and the SALCC showed that there were gaps in their individual expectations. These gaps, undoubtedly, can potentially impact student sustainable performance at the SALCC. However, lack of resources and poor mental health stand out to the researcher. There is a need for more counselling and student support service at the SALCC where these prospective students can seek help and attention.

There was a negative correlation between keeping up with demands and sustainable academic performance. Based on the data provided, most respondents were able to keep up with the demands of their program. Those respondents who were unable to keep up with the demands of their program revealed a close percentage in their ability to sustain or decline in their sustainable academic performance. Overall, those who showed decline, based on the above figures, recorded a high percentage. Being able to keep up has no significant bearing on the students' sustainable

academic performance according to the data. One can also conclude that keeping up with the demand can have either a positive or adverse impact on sustainable academic performance.

The findings reveal that completing assignments on time showed both a positive and negative correlation with sustainable academic performance. From the data presented above, a significant number of respondents were able to complete their assignments on time (65%), while 33.3% indicated, occasionally. This is in keeping with studies by Hawkins et al. (2021) posit the importance of having good study skills and habits on academic performance. These figures show that completing assignments does not significantly impact academic performance. Moreover, the respondents' ability to complete or not complete their assignments have not contributed significantly because of the population size. Thus, this cannot be considered a significant impact on the students' academic performance. From these findings, self-regulatory learning approaches can determine the sustainable academic performance of students.

Student engagement and Sustainable Academic Performance

Writers such as Allin et al. (2017) emphasize the need for learners to be actively engaged in the learning process. This is supported by Tinto (1975) who, in his Integration Theory, argues that the extent to which learners are actively immersed in their learning environment can influence their academic performance either favourably or negatively. For this study, student engagement examined the students' perception of the adequacy of contact hours for class, their ability to attend classes regularly and their comfort level working in groups or individually.

The findings reveal a positive correlation between perception of contact hours and sustainable academic performance, though insignificant. While there seems to be an even split between respondents who were comfortable versus those who were uncomfortable with the contact hours, the closeness of the two perceptions warrants some attention because there must be some

attempt to try either get by during the number of contact hours so that there can be a better appreciation and understanding of the allocation of contact hours for various courses. One can conclude that adequacy of contact hours can influence sustainable academic performance either positively or adversely.

From these findings, there seems to be a negative correlation between attending classes regularly and sustainable academic performance, though insignificant. There appears to be no significant difference between those who attended class regularly and those who did not. Although the percentage of the population is not as significant as those who attended class, one can conclude that the regular attendance of class did not show any significant impact on the sustainable academic performance of respondents. Ancheta et al. (2021) posits that there is a positive relationship between class attendance and academic performance. Moreover, Ancheta et al. (2021) argue that poor class attendance had a negative impact on academic performance. However, in this study, the views of Ancheta et al. (2021) did not hold in this regard because the findings show that students who were unable to attend class regularly actually performed better than those who attended classes regularly. While the level of absenteeism is unknown, which can be seen as a limitation in this study, one can safely posit that, based on the findings, that class attendance had no significant influence on the academic performance of students at the SALCC. However, it can influence sustainable academic performance either positively or negatively.

Overall, comfort level working in groups had both a positive and negative correlation with sustainable academic performance, but it does not show any significant impact on their sustainable academic performance. It is notable that for those students who were indifferent, there was no decline in their GPA. Conversely, the data revealed also that most students prefer working individually. Though there was both a positive and negative correlation with sustainable academic

performance it was statistically not significant. Most notable were those respondents, though uncomfortable, were able to sustain their academic performance. However, since group work has become the new form of student interaction and collaboration, there is a need for more of this type of modality at the pre-tertiary level, for example, completing the school-based assessment (SBA) for CSEC is one of the areas which can be targeted in the future. This notion is in support of Tinto (1975) Integration Theory. Kanevsky et al. (2022) in their writings, posit that when students collaborate on schoolwork rather than working individually, they are more receptive to challenging tasks which will increase their academic performance. Moreover, group work, as a learning strategy, would be more attractive to extroverted learners who are predisposed to learning through active engagement with teachers and peers. Introverts, while they are on the extreme end of the spectrum, are more organized, less socially preoccupied and concentrate more, all of which enhance academic performance. This is supported by Kanevsky et al. (2022) who posit that working individually allows learners to consolidate their learning, decrease distraction and improve their study habits. Working in groups or as individuals can have an impact on sustainable academic performance.

RQ2. What are the school-based factors that determine the sustainable academic performance of students at the SALCC?

The findings from this study revealed that access to learning resources, the type of school a student attends, teacher-student interaction, Instructional Strategies, Teacher Expectations, Relevance of the Curriculum, Performance Assessment Systems and, lastly, Guidance and Support Services are school-based factors which can influence sustainable academic performance of students at the SALCC.

Type of School and Sustainable Academic Performance

The type of school a student attends can have an influence on that individual's academic performance. The findings reveal that there was a positive correlation between the type of school (high range) and sustainable academic performance which was statistically significant. However, there was a negative correlation with type of school (mid-range and low-level) and sustainable academic performance which was statistically significant. Based on the class of secondary school these students come from, we can conclude (according to the classification on the spectrum, high-level, mid-level or low-level), the academic performance of respondents is consistent with the rating of the secondary school. For example, those respondents coming from the high-level rated secondary schools show the highest levels of improved and sustained performance, as well as the lowest level of declined academic performance. This conclusion could result differently if there was a system of zoning for secondary schools on the island, i.e., students will be expected to go to secondary schools in their area of domicile. However, the qualification for entry into secondary schools are dependent on the Common Entrance Examination performance in that, unless a student opts for another secondary school, the top performers at the Common Entrance Examination are

placed into secondary schools based on their performance i.e., those with the highest scores go to the high-level schools. While the present system ensures this outcome, if the move to what obtained in more developed countries and Caribbean neighbours where zoning exists then this outcome may not hold.

One can say that the prospective students' performance can be projected based on the secondary school they graduated from. These findings are supported by (Suna et al., 2020).

Heavy Workload and Sustainable Academic Performance

The findings reveal a negative correlation between heavy workload and sustainable academic performance, though not statistically significant. When considering workload as a factor, there seems to be no significance in the difference between those who were able to improve or sustain their academic performance. Those who considered the workload too much, their level of improvement was impacted, and they declined in their academic performance. This warrants some level of intervention. One can conclude that workload can influence the sustainable academic performance of students, albeit positive or negative. For example, if learners are mastery-oriented they are generally successful, see themselves as capable of handling challenges and are eager to learn (Jayarukshi & Alwis, 2019). These values are synonymous with individuals with good work ethic (Bandura, 2018). Therefore, these students will be better positioned to handle a heavy workload. However, if learners are "failure-avoiding", students may exert little effort and procrastinate on tasks (Jayarukshi & Alwis, 2019) resulting in poor work ethic. Bandura (2018) indicates that lack of capacity and determination to persevere on a task to its end are indicators of a negative attitude towards work which would eventually result in failure accepting students. As such, these students would not be able to handle a heavy workload.

New School Environment and Sustainable Academic Performance

The data reveals that the new school environment impacted the sustainable academic performance of students. There was a positive correlation between the new school environment and sustainable academic performance though not statistically significant.

The opinions of graduates support the response of current students who indicated an impact (Appendix 1, Table 66) where 44% of them indicated that the learning environment was poor and that it had a major impact on their academic performance. It has been documented that factors in the school or college environment can hinder or support students' development and academic success (Dhanapala, 2021).

Student Expectations of Teachers and Sustainable Academic Performance

The findings reveal that there was a negative correlation between student expectations of teachers and sustainable academic performance. Students were asked whether their expectations of teachers had an influence on their academic performance and the responses were 50.0% "Yes" and 50.0% "No". There was no significant impact on the performance of students based on their expectations of their teachers. While the responses show that some students had expectations of their teachers which were not met, it can be seen that there was no significant difference in those who said "Yes" that their expectations were met, and "No" they were not. Those whose expectations were not met, did not let that impact their academic performance. According to Gentrup et. al. (2020), there seems to be a mismatch between the students' expectations of teachers and teacher expectations as it relates to who has the responsibility for learning. According to Gentrup et. al. (2020), it is the students' responsibility at the tertiary level for his or her learning, however some students are of the opinion that lecturers have the greater responsibility. The

findings seem to suggest that some students have not made the transition from a teacher-centered learning environment which obtains at the secondary school level to the student-centered learning environment which obtains at the tertiary level of education. Not being able to make the transition earlier enough can negatively impact the academic performance of students. However, students who are able to make the transition earlier enough can improve or sustain their academic performance from secondary school to tertiary level of education. Thus, one can conclude that the students' expectations of their teachers can have either a positive or adverse influence on their sustainable academic performance.

Teacher Expectations and Sustainable Academic Performance

Panda (2022) states, teachers commence by forming opinions about the behaviour of learners or the level of success of each student in class. The teacher then subconsciously responds to students based on their perceptions of them. As a result of treating students according to different scales, students respond differently and often in accordance with the teacher's expectations. This disparity in the teacher's conduct can affect students' achievement motivation, aspiration level and self-concept.

The findings reveal a positive correlation between teacher expectations and sustainable academic performance though it was not statistically significant. It must be noted from the data that there was an equal decline in the respondents' performance when examining the impact of teacher expectations on academic performance. Panda (2022) posits that teacher expectations do influence how well and how much students learn. It must be noted, however, that when teachers have high expectations of students, that does not necessarily mean that students will possess the innate abilities for learning and academic success (Panda, 2022). As such, this can create a

negative relationship between teacher and student and thus negatively impact the student's sustainable academic performance.

Student Expectations of SALCC and Sustainable Academic Performance

Writers such as Jordan (2019) posit that students' expectations of the learning institution, and the subject area influences the students' academic performance. The findings reveal that there was a positive correlation between student expectations of SALCC and sustainable academic performance, though not statistically significant. For those who felt that their expectations of SALCC had an impact, and those who felt that there was no impact on their academic performance, there was almost a break-even with those whose grades declined, a gap in their ability to sustain their grades and a lower percentage in improving their academic performance. Overall, it can be seen from the above data that expectations of learning institutions can impact sustainable academic performance.

Instructional Strategies and Sustainable Academic Performance

This involves all facets of the lesson, including strategies in teaching, conduct and disposition that teachers display while teaching. The findings show that there was a negative correlation between instructional strategies and sustainable academic performance though not statistically significant. Burroughs et al. (2019) who, from their writings, posit that there is a favourable connection between effective teaching and academic achievement. Similarly, Jordan (2019) purport that students perform better because of the utilization of effective teaching practices. However, implementing poor instructional strategies can be detrimental to the learning process which can lead to poor academic performance. One can conclude that instructional strategies can influence sustainable academic performance.

These findings are not in keeping with that of Obilor (2019) who argues that there is a significant relationship between instructional methods and academic performance of students. Moreover, it must be noted that within the secondary school system the teacher-centered approach is used as the accepted form of instruction. Under this approach students are provided with information from the teacher without improving their level of engagement in the subject area (Pandey & Thapa, 2018). If a lesson is not organized, some students may lose interest. This can create anxiety in learners as they may not be motivated to work since they become frustrated each time that they have to attend class. Consequently, some students may not participate in class or decide not to attend at all. This can result in poor academic performance as students can be seen as developing poor work ethic because they display a lack of interest in their work. However, some students who have high cognitive levels may persevere and do most of the work on their own, while others may seek guidance and support from other students or teachers to help them understand the concepts taught in class. By understanding how students learn, teachers can identify various teaching methods which can be implemented in the classroom in order to effectively reach learners. In doing so, the quality of teaching can be improved and is often reflected in the sustainable academic performance of learners.

Importance of Learning Resources and Academic Performance

According to Etim (2021), learning resources are fundamental to learning. However, the findings reveal that there was a negative correlation between the importance of learning resources and sustainable academic performance though not statistically significant. It was notable from the findings that there was no significant difference in these students' ability to improve, sustain or decline in their academic performance. The paramount reason for their academic performance was the fact that handouts were provided in lieu of not being able to obtain textbooks for their courses,

thus not having access to these learning resources had no impact on them. Saleem et al. (2017) go on to state that learners who perform better have access to more educational and non-educational resources and thus would more likely outperform their counterparts with less resources. However, one cannot disregard the importance of learning resources to student success. Moreover, the unavailability of libraries and adequate physical facilities can restrict an education system from adapting to the new demands in education. An inadequacy of instructional material can cause teachers to handle subjects in an ambiguous manner and with little enthusiasm. This argument thus underscores that those basic instructional resources at educational institutions are fundamental to the satisfactory performance at examinations than if they were absent. Etim (2021) opines that for schools to realize an increase in student academic performance, the availability of appropriate and adequate textbooks and other instructional and learning resources cannot be overlooked. Therefore, one can conclude that access to learning resources can impact sustainable academic performance.

Teacher-student interaction and Sustainable Academic Performance

Abaidoo (2018) posits that the lack of communication and interaction between the teacher and student are key factors which can shape a student's work ethic and academic performance. The findings reveal that there is a positive and negative correlation between teacher-student interaction and sustainable academic performance though not statistically significant. These findings confirm the writings of Jordan (2019) at the interaction between students and their teachers can influence academic performance. In this study, the assessment from the respondents seems to suggest that the teacher interaction was fairly good to excellent and that reflected positively in their academic performance. Gan (2021) agrees with Abaidoo (2018) that the

interaction between students and their teachers is a factor that can affect student sustainable academic performance.

Teacher-student ratio and Sustainable Academic Performance

Ajan and Akinyele (2014) and Etomes and Lyonga, (2020) posit that there is a significant connection between student-teacher ratio and academic performance. Babalola and Nike (2021) state that an ideal student-teacher ratio of 1:35. Thus, according to Babalola and Nike (2021), a high student-teacher ratio can lead to poor academic performance. Thus, the adverse impacts of a larger class size cannot be overstated. The findings reveal that teacher-student ratio had both a positive and negative correlation with sustainable academic performance though not statistically significant. In this study, students from programs with a student-teacher ratio of 15-25 recorded the least grade improvement and largest decline in their sustainable academic performance, while students within programs with student-teacher ratio of 26-35 recorded the highest improvement, were able to sustain their academic performance and had the lowest decline in academic performance. It is interesting to note that the students from the smaller groups had challenges improving, sustaining and experienced the greatest decline in their academic performance, while students from the larger groups were able to improve and sustain their academic performance higher than the 15-25 groups and experienced least decline in their academic performance. Therefore, for this study, the argument put forward by Babalola and Nike (2021) cannot hold. One can conclude that classroom size can significantly impact on sustainable academic performance whether positively or adversely.

Classroom Facilities and Sustainable Academic Performance

The findings reveal a positive and negative correlation between classroom facilities and sustainable academic performance. Based on the ratio of respondents who stated that classroom

facilities were excellent, showed a positive correlation with sustainable academic performance though statistically not significant. However, students who reported that classroom facilities were very good, good, and fair, there was a negative correlation with their sustainable academic performance though statistically not significant. Students who reported that the classroom facilities were poor there was a positive correlation with sustainable academic performance which was statistically significant. Besides those who considered classroom facilities as poor, their decline in their sustainable academic performance was the lowest. When analyzing the data, one can conclude that classroom facilities can either positively or negatively impact performance.

The opinions of graduates were obtained on the factors which impacted their academic performance where 51% of students indicated the “Inadequacy of seating” as a major impact. When lecturers were asked whether they had any issues with classroom location and infrastructure in terms of lighting, layout, location, air circulation and visual aids, 81.80% indicated that they had issues with air circulation; 72.70%, the size; 63.60%, lighting; 54.50, visual aids; and 36.40 location. The classroom facilities can have a positive or negative impact on academic performance (Jordan, 2019). However, writers Kart and Kart (2021) do not agree that there is any relationship between classroom properties and the learning process. For this study, the writings of Kart and Kart (2021) do not hold.

Performance Assessment Systems and Sustainable Academic Performance

Assessment is defined as the systematic collection and analysis of information to improve student learning. Thus, using diverse forms of assessments can be used to determine academic achievement. Additionally, assessment provided valuable information about the learning process (Conley, 2018). Moreover, it enables teachers to assess the effectiveness of their teaching by

linking the performance of students with specific learning outcomes. Additionally, it provides feedback for both teachers and learners to determine the extent to which learning outcomes have been achieved, thus, providing documentary evidence and validation that meaningful learning has occurred.

The SALCC respondents (lecturers) from the data are split on whether the assessment system has been adequate or not. Fifty-four percent considering the system inadequate can be considered significant enough to impact academic performance at the SALCC, thereby requiring some form of intervention.

Data from the respondents (lecturers) highlight that the entry requirements to SALCC are not understood or accepted by all lecturers who are key stakeholders in the operations of the SALCC. While 55% provided support for the existing entry requirements, their reasons for supporting the system did not support their “Yes” response. Their response is suggesting improvement.

From the data provided, one cannot reasonably arrive at any conclusion from this except to say that most lecturers and employer participants in the internship program are happy with the students’ preparedness for internship. One can conclude that the quality of the persons participating in the internship program are acceptable to both lecturers and employers. Moreover, the data is skewed because only those employer participants in the SALCC program who provided negative responses, provided responses to support their answers. One can therefore conclude that the performance assessment systems employed can impact sustainable academic performance.

Guidance and Support Services and Academic Performance

Providing guidance and support to students is fundamental in the transitioning phase from secondary school to post-secondary school as some students may be faced with academic, social, and personal challenges. Most graduates indicated that they did not have the necessary support to assist them through college life and, as such, this impacted their academic experience at the SALCC. However, lecturers were satisfied with the support and assistance provided to below-average students but did not provide any additional information to support their responses. When the representative from the Students' Services Unit was asked what policy, if any, exists in assisting students with their SALCC school experience the response was a resounding "there is no such policy".

Many learners face diverse challenges particularly during the transition phase, as well as upon entering the new learning environment. It is equally important that educational institutions like the SALCC provide support at the secondary school level of education by providing information to equip prospective students with the post-secondary school challenges to guide them at that level. This notion is supported by Mishra (2020) who posits that there is a positive relationship between guidance and support programs on student academic performance. If guidance and support is not provided, learners will continue to be unprepared for the academic rigor which obtains at the post-secondary level and can lead to frustration, poor work ethic, poor performance, repetition of courses and even high levels of attrition. On the other hand, if an approach to guidance is adopted by the SALCC, this can lead to positive learning outcomes and sustainable academic performance.

In addition, college support provided at the post-secondary level can help learners to navigate and embrace their new learning environment. However, because of a culture of mistrust,

learners are reluctant to visit counsellors when they are faced with academic or personal challenges. While some students can cope, others seek undesirable coping mechanisms which can further lead to undesirable outcomes. Therefore, the support and guidance provided to students can have either a positive or adverse impact on their academic performance.

Relevance of the Curriculum and Sustainable Academic Performance

Yu and Mocan (2019) argue that the intensity and significance of the curriculum at the secondary school level of education can be a predictor of whether students may choose to transition to post-secondary level of education. A curriculum ensures that students are taught materials that are relevant for various industries and provides an opportunity for learners to regulate their learning, and teachers to monitor the learners' performance. It has been generally observed that lecturers and employer-participants in the internship program are satisfied with the curriculum at the SALCC in terms of its influences on sustainable academic performance, as well as meeting the needs of employers. In terms of the curriculum at the secondary school level in preparing students for the CSEC examinations, 70% of secondary school teachers were "Satisfied", 13% "Extremely satisfied" and 17% "Very satisfied". Therefore, one can conclude that relevance of the curriculum can influence whether students transition into tertiary level of education or the workforce.

RQ3. To what extent do student-based factors influence the sustainable academic performance of students in Sir Arthur Lewis Community College?

The findings from this study revealed that learner ability, prior academic performance, motivation, gender, age and student engagement; particularly working in groups or individually, as well as self-regulatory learning strategies regarding access to support, the adequacy of contact hours with reference to student engagement, self-regulatory strategies with reference to keeping up with demands, attending class regularly as well as completing assignments on time revealed no significant influence on sustainable. However, the only variable shown to have a significant influence on sustainable academic performance was prior academic performance. These findings are in keeping with the writings of Yusuf et al. (2018) who, in his study found that prior academic performance was the most significant influence on academic performance.

RQ4. To what extent do school-based factors influence the sustainable academic performance of students at the Sir Arthur Lewis Community College in Saint Lucia?

The findings from this study revealed that heavy workload, relevance of the curriculum and guidance and support, teacher-student interaction, instructional strategies, performance assessment systems, expectations of teachers, student-teacher ratio, new school environment and teacher expectations revealed no significant influence on sustainable academic performance. However, the type of school a student attends put forward by Suna et. al. (2020) and classroom facilities put forward by Jordan (2019) statistically had a significant overall influence on sustainable academic performance of students at the SALCC. However, writers Kart and Kart (2021) do not agree that there is any relationship between classroom properties and the learning process. For significance of classroom facilities on sustainable academic performance, the writings of Kart and Kart (2021) do not hold.

Summary

Out of 939 questionnaires administered, 180 Students, 11 Lecturers, 1 member of the Students Services Unit, 3 Guidance Counsellors, 5 Employers, 30 Secondary School Teachers and 404 Graduates, 638 questionnaires were filled and returned. This represented a 68% response rate, which is considered satisfactory to make conclusions for the study. This can be supported by Mugenda and Mugenda (2003) who state that a response rate of 50% is adequate, a response rate of 60% is good and a very good response rate is 70% and above. Thus, based on these assertions a response rate of 68%, in this instance, is good.

The study endeavoured to identify the school-based and student-based factors on sustainable academic performance at the SALCC, Saint Lucia. In order to accomplish this, the

study put forward 4 research questions with the hope of identifying the school-based and student-based factors on sustainable academic performance. The variables chosen for this study was based on Wahlberg's (1981) Educational Productivity Theory to explain the connection between the learning variables and learners' sustainable academic performance.

Firstly, the research sought to identify the student-based factors that determine the sustainable academic performance of students at the SALCC in St. Lucia. Upon review of the findings, motivation, learner ability, perception of contact hours and keeping up with demands had a positive correlation with academic performance while prior academic performance, attending class regularly and access to support had a negative correlation. Age, gender, comfort level working in groups or individually and completing assignments on time showed mixed results. The findings can conclude that the identified student-based factors can have either a positive and/or negative influence on one's sustainable academic performance.

Secondly, the research sought to identify the school-based factors which influence the sustainable academic performance of students at the SALCC in St. Lucia. To accomplish this, a review of the responses from participants was done and the findings were as follows: new school environment, teacher expectations, student expectations of SALCC showed a positive correlation with sustainable academic performance. While heavy workload, student expectations of teachers, teaching strategies, importance of learning resources had a negative correlation with sustainable academic performance. Type of school, teacher-student interaction, student-teacher ratio, classroom facilities showed mixed results. The performance assessment systems employed at the SALCC can impact sustainable academic performance. However, guidance and support provided to learners both at the secondary school level and at the SALCC can have either a positive or negative impact on sustainable academic performance. Relevance of the curriculum

can influence whether students transition into tertiary level of education or the workforce. From these findings one can conclude that the identified school-based factors can have either a positive and/or negative influence on one's sustainable academic performance.

Thirdly, the writer endeavoured to identify to what extent the student-based factors influenced the sustainable academic performance of Students at the SALCC in St. Lucia. The study used Wahlberg's (1981) Educational Productivity Theory to explain the connection between the learning variables and learners' academic performance. In doing so, the study was able to identify that prior academic performance had the most statistically significant influence on sustainable academic performance of students at the SALCC.

Fourthly, the writer endeavoured to identify to what extent the school-based factors influenced the sustainable academic performance of students at the SALCC in St. Lucia. The study used Wahlberg's (1981) Educational Productivity Theory to explain the connection between the learning variables and learners' academic performance. In doing so, the study was able to identify the type of school and classroom facilities (poor) to have the most statistically significant influence on sustainable academic performance of students at the SALCC.

CHAPTER 5: IMPLICATIONS, CONCLUSIONS AND RECOMMENDATIONS

This chapter examines the implications, conclusion, recommendations for application as well as recommendations for future research based on the findings of the previous chapter. The chapter commences with a brief overview of the participants, challenges and protocols encountered in this study followed by the implications, conclusions drawn, recommendations for application and recommendations for future research. Students admitted into the Department of Technical Education and Management Studies (DTEMS), the Department of Arts Science and General Studies (DASGS) and the Department of Agriculture (DAGRI) of the SALCC are graduates of the secondary school system in St. Lucia. These students possess a minimum of seven Caribbean Secondary Education Certificate (CSEC) subjects (equivalent to seven O' Levels) in various disciplines. This level of CSEC achievement is the basic entry requirements for the respective programs at the SALCC. While most of these students are proficient at the secondary school level, meet the entry requirements and successfully register into the College's two-year programs, a significant number of students are faced with challenges in sustaining their academic performance at the SALCC. The purpose of this mixed-method research was to empirically explore the influence of the underlying factors that contribute to the gaps and challenges for a significant number of students, that contribute to their unsustainable academic performance once admitted into the Sir Arthur Lewis Community College.

The impact of the COVID-19 pandemic on the island of St. Lucia from February 2020 to current, necessitated the closure of many schools forcing them to operate online, therefore. because of social distancing protocols, the respondents were required to complete the consent forms online as well as the survey using google forms rather than completing them face-to-face which would have been the ideal method of data collection. Also, the researcher was dependent

on principals to relay survey invitations and reminders to teachers at the secondary school level to participate in the research. Allowing principals to select teachers ensured the absence of researcher bias in data collection. Since this type of study has not been administered at the SALCC, there exists a lack of empirical data to the research problem at hand and consequently the writer is not able to make any comparisons in the findings.

This study received approval from UREC to certify the ethics application, research instruments, gate keeper letter, consent forms and approvals from the Sir Arthur Lewis Community College as well as the Ministry of Education, in order to proceed with the data collection phase for this research. All participants in this study were given informed consent forms which they were obliged to read, sign, and return to the researcher on a stipulated date. For this investigation, all participants, in accordance with the laws of Saint Lucia, would have attained the age of adulthood.

Once the consent was given, the participants were briefed on the nature of the study, what was required of them, and the advantages and disadvantages of their participation, to allow for their full disclosure and honest participation. They were reminded that their participation was voluntary and assured of their right to withdraw at any time without explanation if they felt any discomfort during the study. Participants were informed that their identity would be kept anonymous, and any personal or sensitive information would be treated with discretion unless they instructed otherwise. Moreover, in this case pseudonyms were used to protect their identity and ensure confidentiality.

When the research was completed, the researcher went through a debriefing process with participants. Additionally, the participants were also informed that they had the right to access their data during a specific and agreed period. Upon completion of the data collection, the researcher ensured that obviously inaccurate statistics was not utilized, or either mistakenly or

deliberately failed to report any statistics that may not be aligned with the results of the research. With the availability of new advancements in technology, the researcher took the greatest measures to ensure that all documents are stored in a password protected file. The chapter continues with a discussion of the implications of the study, conclusion as well as the recommendations for application and subsequently recommendations for future research.

Implications

The implications for this study are presented with respect to each research question and conclusions drawn. It must be noted that the implications of these findings can be positive and negative.

RQ1. What are the student-based factors that determine the sustainable academic performance of students in Sir Arthur Lewis Community College in Saint Lucia?

The findings related to RQ1 reveal that motivation, ability to adjust, perception of contact hours and keeping up with demands had a positive correlation with academic performance while prior academic performance, attending class regularly and access to support had a negative correlation. Age, gender, comfort level working in groups or individually and completing assignments on time showed mixed results. From these findings the researcher can deduce that the student-based factors identified impact the academic performance of students at the SALCC as it relates to their ability to sustain their academic performance. These findings indicate that students who are able to sustain their academic performance will feel a sense of achievement, increased motivation, employability and be better positioned to pursue higher education. Four out of the five major employers participating in the SALCC internship program indicated that they were satisfied with the students' performance while on internship (table, 4.36). Thus, these students will

contribute to a well-trained workforce that would make them more marketable for both domestic and global employment. The country of Saint Lucia will experience high productivity levels which can be attractive to foreign direct investment to the island. Moreover, the unemployment rate will be reduced. If students' academic performance is on the decrease, this can have an adverse impact on the retention rates of the SALCC and a negative impact on its reputation and ability to attract more prospective students. Additionally, the SALCC would be required to invest supplementary resources and provide greater support to students to enable them to cope with the challenges that are impeding their academic performance. Furthermore, poor academic performance can lead to social ills such as high unemployment rates and have socioeconomic implications for the home. These poor performers will have to repeat courses which they have failed and, consequently, this will add to the cost that the family must bear to allow students to re-sit their examinations. In addition, poor performance can impact self-esteem and mental issues for students who are unable to cope with the expected performance at that level of education.

RQ2. What are the school-based factors that determine the sustainable academic performance of students in Sir Arthur Lewis Community College in Saint Lucia?

From the findings related to RQ2 it is revealed that new school environment, type of school, teacher expectations, and SALCC expectations show a positive correlation with academic performance. Heavy workload, your expectations of teachers, teaching strategies, importance of learning resources and teacher-student interaction show a negative correlation with sustainable academic performance. Student-teacher ratio and classroom facilities showed mixed results.

One can deduce that school-based factors identified can impact the academic performance of students at the SALCC as it relates to their ability to improve, sustain, or decrease their academic performance. The implications of these findings are that the SALCC will need to make continuous improvements, for example in its curriculum, to ensure that it is aligned with the needs of industry, invest in providing adequate resources to meet students' needs and, also, provide professional development opportunities for faculty. These improvements can improve both the sustainable academic performance of students and the SALCC's reputation. The SALCC may need to create student support systems to assist them with the challenges they may be encountering whether social, financial, or academic.

From the observational schedule, it was revealed that regardless of the type of secondary school, albeit low-level, mid-range or high-level schools, the teaching methods were generally the same. At the secondary schools, it was a more teacher-centered learning environment where the teachers ensured that the students understood the concepts before moving on with the lesson. They answered the students' questions effectively and used the appropriate teaching and assessment methods. However, there was more teacher-student interaction at low-level schools than at the mid-range and high-level schools.

The implication of these findings is that students will have the expectation that the teaching methods and level of interaction which obtained at their various secondary schools would be the same at the SALCC. While students at the mid-range and high-level schools received less attention in class because of their higher cognitive levels, students from low-level schools will have the expectation that they would receive the same degree of attention to which they were accustomed. However, at the SALCC, it is a more student-centered learning environment, and this transition from a teacher-centered one may be too abrupt for some students. The SALCC needs to devise

ways to facilitate the learning requirements of transitioning secondary school students. If this facilitation is not done, students who are faced with challenges will be forced to seek potentially ineffective strategies to cope or, eventually experience academic performance decline.

RQ3. To what extent do student-based factors influence the sustainable academic performance of students in Sir Arthur Lewis Community College in Saint Lucia?

The findings as it relates to RQ3, reveal that prior academic performance is the only student-based variable that shows a statistically significant impact ($\chi^2(1) = 53.9, p < .001, n = 180$) on the sustainable academic performance of students at the SALCC. The implications of these findings are that the students' prior academic performance can predict the level of their academic performance at the SALCC. Additionally, the number of students who are successful at the CSEC examinations would determine the intake, as well as the number of students being accepted into the various programs at DTEMS, DSAGS and DAGRI. Moreover, the institution can decide to change its intake qualifications, thereby increasing the CSEC qualifications required for entry into the SALCC. In doing so, the institution would ensure that its retention pool and performance would be sustained. However, the negative implications are that, within the national context, there are very few alternatives for students who are borderline performers and may have completed only 3 or 4 CSEC subjects. There are no institutions they can go to that would prepare them for the transition to SALCC. Therefore, the SALCC may have to create an intermediate program to accommodate the low performers. Alternatively, the government will have to establish a new learning institution to meet the needs of these learners which would help them to sustain or improve their academic performance.

RQ4. To what extent do school-based factors influence the sustainable academic performance of students in Sir Arthur Lewis Community College in Saint Lucia?

The findings as it relates to RQ4, reveal that type of school and classroom facilities are the only school-based variable that statistically significantly impacts ($\chi^2(1) = 53.9, p < .001, n = 180$) the sustainable academic performance of students at the SALCC. Not all secondary schools are equal. Their performances vary, commensurate with the type of school. SALCC should consider options in keeping with the observable outcomes. The institution can improve the entry requirements or adhere to a standard that will attract the mid-to-high performers. It can also consider creating certificate programs with curricular tailored to suit the abilities of a basic and an advanced group. The students who will be faced with challenges would then require the necessary academic support to enable them to cope in their new learning environment. That would ensure sustainable performance, thereby keeping the retention rates high, barring a few unsuccessful students on the lower end of the periphery. Another implication is that there would be a need to identify professional development programs for faculty that would prepare them to cater to the needs of different groups (student-centered, teacher centered and VARK). In this regard, the SALCC must invest in the professional development of its faculty. The implications of having poor classroom facilities would mean that the students' basic needs are not met and, therefore, some students will have challenges integrating into their learning environment. This would require the SALCC to make sufficient investment to provide adequate classroom facilities and Digital infrastructure to meet the basic needs of students.

The limitations with respect to the data collection method did not impact negatively on the interpretation of these results due to the fact that the students were able to complete the survey

online, responses to the research question were downloaded into an excel format and analyzed as would obtain if they the students were to complete the survey in the face-to-face context. However, because to the impacts of the COVID-19 pandemic and the established protocols of the state, as mentioned prior there was an impact on the education system where the observer was not able to assess many classes in a physical learning environment, more so, was only able to observe a limited number of subjects in some secondary schools. Thus, there was some impact on the distribution in some subjects between high level, mid-range, and low-level schools in conducting the observational schedule.

The results of this study enabled the writer to identify the underlying factors which contributed to the gaps and challenges faced by a significant number of students which contribute to their sustainable academic performance once admitted to the Sir Arthur Lewis Community College. The Walberg's (1981) Education Productivity Theory enabled the writer to explain the connection between the learning variables and learners' academic performance. The use of Walberg's (1981) Educational Productivity Theory allowed the researcher the latitude to identify the most relevant variables to determine the learning outcomes of students in this study. Hence, the term 'inputs' and 'outputs' were used to describe the dependent and independent variables that were related to student learning outcomes. Thus, the school-based factors and student-based factors were categorized as dependent variables (input) while the results on the sustainable academic performance of students was the independent (output) variable. The results for this study revealed that the dependent variables influenced the independent variable.

The findings for this research are in keeping with established literature by enabling the researcher to confirm whether the identified variables had an influence on the sustainable academic performance of students at the SALCC. Additionally, since no empirical research has been

conducted at the SALCC allows the researcher to contribute to existing literature by building on existing research on sustainable academic performance in the context of tertiary level education particularly community college education in the Caribbean region.

Conclusion

The study was an important first step for the Sr Arthur Lewis Community College in assessing the academic performance of students. In understanding these issues, the focus of the study was on how one can improve the quality of the output from SALCC and how to assist students to become more work-ready/successful graduates from the SALCC. To accomplish this task, the writer chose the conceptual framework put forward by Walberg (1981) which allowed the writer the latitude of identifying key variables which formed the basis of the literature review which can determine the learning outcomes of students. The variables were categorized into student-based which included learner's ability, age, gender, motivation, prior academic performance, self-regulatory learning strategies, importance of learning resources and student engagement, while school-based variables included the type of secondary school a student attends, the size of the workload, new school environment, teaching methods, teacher interaction, student-teacher ratio, classroom facilities, performance assessment systems and relevance of the curriculum. The student-based factors and school-based factors were the independent variables while the sustainable academic performance was deemed the dependent variable.

This research was a case study research design, and, in this study, the researcher endeavored to use a mixed methods approach using both quantitative and qualitative data collection methods. Primary data was collected through a case study research design utilizing by implementing a questionnaire, interview protocol and observational schedule to gather data for this study from participants who were considered significant contributors to this study. Students

and lecturers were solicited to discuss the student-based and school-based factors which contribute to the students' sustained academic performance at SALCC, and staff of the Students' Services Unit were solicited to discuss the systems that are currently utilized by the SALCC to assist students with college life. Guidance Counsellors within the secondary school system were solicited to discuss what is being done at the secondary schools to prepare students for post-secondary level education. Secondary school teachers were solicited to obtain their input on the curriculum and assess the effectiveness of their teaching practices in preparing students for post-secondary education. Employers were recruited to discuss the issues or challenges, if any, for graduates and students during internship and employment, post-graduation. Graduates were invited to discuss their level of preparedness for study at the SALCC, the challenges encountered and the impact of their experience in the world of work.

The method of analysis was descriptive statistics, correlation analysis and regression analysis. The aim of using this combination was for confirmation purposes which allowed for the data gathered to be evaluated, patterns observed as well as comparison made of the data. Moreover, the researcher ensured the integrity of the research documents by ensuring the highest level of reliability and validity of the research, all things being equal. To achieve this, the researcher ensured that the tests measured what they were intended to measure, that is, they would have high validity and would be consistent over time and, that is, they had high level of reliability.

The researcher ensured that permission was granted by UREC which certified that permissions were granted by the Sir Arthur Lewis Community College and the Ministry of Education to conduct this study as well as ethical guidelines were adhered to aimed as safeguarding as much as practically possible the researcher, the participants, and the integrity of the research.

The scope of the study was restricted by the impacts felt on the island of St. Lucia from the COVID-19 pandemic, which started affecting the island of St. Lucia from March 2020. This phenomenon was new to all, and its impact was felt across spectrums of society. This affected the scope of the observation schedule, the completion of volume of questionnaires and also the reduction in the schools' population pool as most schools remained inoperable for an extended period. The study revealed that both the identified school-based factors and student-based factors put forward had an influenced sustainable academic performance. While certain factors did not carry much weight, others were significant. The writer hopes that some level of attention be given to the recommendations which would undoubtedly help incrementally towards the improvement of academic performance at the SALCC.

The findings of the research supported certain writers such as Ranjeeth et al. (2020) who posited that female learners outperform their male counterparts. However, writers, Adigun et al. (2015) revealed that gender has no significant influence on academic performance. In this instance, however, according to the research findings, Adigun et al. (2015) theory was substantiated.

The research highlighted certain weaknesses and gaps within the education system in St. Lucia such as the lack of a transition program to assist students when they have transitioned from secondary level of education to tertiary level of education and reemphasized the need for certain resources in key areas within the education structure of the country including the SALCC. While the island of St. Lucia is a third-world, small, independent country of 238 square miles and an average GDP of 20.2 percent, resources are scarce and the access to resources are challenging and very difficult. It is hoped that some of these recommendations will be placed on a priority scale and that the more critical ones requiring less resources would be attempted in the immediate short-term and that SALCC would use its influence and its marketing in negotiating skills to access

local, regional, and international technical support for the grant of aid and plant extension, equipment, renovation, and refurbishment.

Having the support and better appreciation for such a study, one would encourage further research or study into the areas of the impact of COVID-19 pandemic on the SALCC curriculum and the teaching delivery methods, and the short-term impact on students, the medium to long-term impact on students and the SALCC. Some of these recommendations can be implemented in the short, medium, and long-term. The writer was very pleased with the study and the areas of strengths and weakness it brought to light. The writer looks forward to being a part of the implementation of these recommendations.

Recommendations for Application

Based on the information and findings obtained from this study and the literature reviewed, the researcher wishes to make the following recommendations which can be implemented in the short, medium, and long term to bridge the gap between secondary schools and the SALCC. The recommendations will be categorized as school-based and student-based, which should be implemented with the aim of improving the academic performance of students at the SALCC.

School-Based Recommendations

Sir Arthur Lewis Community College

The transition from secondary school to college is not a smooth, seamless, and simple process. A transition program should be developed to assist students in adjusting to college campus life and beyond. According to Gaff (1997), these programs have been proven to increase academic performance, student satisfaction and retention. Moreover, Goodman et al. (1997) posit that students need to familiarize themselves with the expectations and norms, dispel or relinquish their

prior roles and comprehend the transition while they enter a new phase of their lives. In order to achieve the foregoing, the following initiatives are recommended:

- Professional development programs for lecturers aimed at changing attitudes and fostering a more tolerable and positive attitude towards students.
- The development of training programs for lecturers within the various departments aimed at enabling them to deliver their courses more efficiently and effectively, particularly in terms of their instructional practices and teaching methods.
- Reestablishing a sustainable peer mentoring program with a focus on at-risk students and those who may require such support with the objective of assisting these students in coping with factors that may negatively affect their performance in school. Additionally, such programs may not be limited to solely focused on academic performance but on the overall development of student life, career options, work ethics etc. The proposed mentors would have met certain established standards/qualifications.
- The SALCC internship program should be more universal, thereby allowing all students to have an opportunity to gain work-experience during their time of study to prepare them for the world of work. In doing so, this would enable them to identify areas for improvement and to build student confidence. In the end, this could contribute to positive overall academic performance.
- The SALCC orientation program should include presentations by national employers, or their representatives, who are expected to share what is expected of them in the industry – issues such as soft skills, work ethics etc. This can assist in preparing them for their internship and can better inform them as to whether a career in their chosen area of study is the right choice.

- An established sustainable system of peer review of lecturer lesson plans should be conducted at the beginning of each semester. This can provide lecturers with an assessment of their lesson plans and their teaching methods and obtain feedback in order to meet the requirements of their various courses as well as meeting the students' expectations.
- More focused attention must be paid to scheduling and timing of courses during any one semester. The focus must be on ensuring that the courses are better spread across the two-year program thereby allowing the students a better combination of courses during any semester. Identifying students, for example, those who find difficulty in handling a number of quantitative courses within one semester, can have them spread throughout the school year of their academic program. This minor adjustment would undoubtedly assist students in managing their classes and study program better, thereby contributing positively to academic performance.
- The SALCC must establish a sustainable system of rewards and sanctions aimed at dealing with delinquency and truancy. It is expected that these rewards and sanctions would contribute to some level of increase in class attendance and participation which would, in one way or the other, contribute to academic performance.
- The SALCC would benefit positively from the selection and employment of at least three quality assurance officers in the short to medium term. The responsibility of these officers should include, but not limited to review, assess, monitor, and evaluate course material, content, teaching practices and methods of assessment. This introduction would ensure standardized course material being taught.
- The SALCC should employ Course Quality Assistants to assist in the online learning environment. This has been necessary as the impact of the COVID-19 pandemic has forced

schools to operate in an online learning environment. As such, Course Quality Assistants are expected to provide support to lecturers and students in the online learning environment. In doing so, they can identify areas for improvement on course pages, provide feedback, as well as identify students who are not engaged in the learning process and provide support to them.

- The establishment of a sustainable system of rewards and sanctions for lecturers must be introduced. Sanctions should be enforced for lecturers where there are issues with punctuality and regularity at school whether it is face-to-face or online learning. This can encourage good habits in lecturers and make them better prepared for class to provide the necessary academic support to students. Issues of punctuality and regularity must form part of the assessment of lecturers if we are to provide students with a good learning experience.
- The establishment of a modern library to include up-to-date electronic reading material, a reading hall, open access online resources, tutorial rooms, a social space for group work, research facility, computer and IT facilities, language learning facilities and reliable uninterrupted internet service. This is expected to help students with study-life thereby contributing positively to their performance.
- The SALCC must provide facilities for students with disabilities to help them to integrate seamlessly into the college community and, by extension, become more productive citizens. For example, providing easy access to college infrastructure as well as the provision of special education teachers to provide support to students with learning disabilities. These facilities would assist students in navigating through campus and classrooms, as this navigation sometimes takes an inordinate time to move from one class to another thereby impacting student performance.

- The reintroduction of sustainable extracurricular and social activities that promote the students' educational growth. These activities would develop a more well-rounded focused student.
- The SALCC, annually, should host one workshop/seminar for form 5 teachers and guidance counselors aimed at sharing with them some of the issues faced by students and the SALCC and communicate with them the expectations of the SALCC.
- The SALCC should adopt a system of international best practice across the spectrum of its operations and services offered.
- The SALCC should review their modality of teaching and learning in the advent of the COVID-19 pandemic to ensure the positive academic performance of students.

While the above recommendations would require resources such as plant, space and financial within a constrained physical space it is expected that the college will be seeking grant financing and technical exchange support for these programs for the short, medium, and long term.

Ministry of Education

The Ministry of Education should:

- Encourage secondary schools to work collaboratively with the SALCC to create effective transition programs aimed at preparing students who are desirous of pursuing tertiary education thereby enabling them to cope effectively and seamlessly in the new learning environment.
- Encourage programs at secondary schools as part of their academic calendar, sessions with students and their parents with the staff of the SALCC, informing them of the program offerings at the SALCC, the entry requirements and what is expected of them.

- Encourage curriculum development in collaboration with the SALCC aimed at bridging the gap in the students' transition.
- Should establish programs within the secondary schools aimed at identifying and providing support for poor performers should include, but not limited to academic, financial, or social.

Secondary School Teachers

The teachers at the island's secondary school:

- Should work closely with guidance counsellors to identify poor performers and develop academic plans with the aim of providing support to improving the academic performance of these students.
- Should familiarize themselves with the requirements and systems of the Sir Arthur Lewis Community College thereby tailoring their instruction and guidance to students to prepare them with their transition to post-secondary education.
- Should encourage more group work and collaboration among students.
- Should be encouraged at least once in the students' final year of study to invite a representative of SALCC to make a presentation to students on the programs offered and student life at SALCC.

Guidance Counsellors/Secondary Schools

Guidance Counsellor should:

- Work more closely in a structured manner with teachers to identify poor performers and develop programs and support aimed at improving their academic performance at the CSEC level.
- Host seminars (career days for students) for students aimed at providing career guidance at the form 3 level to enable these students to have a clear idea of the requirements for various job opportunities so that they are able to choose the courses which match their career choice as well as the entry requirements for study at the SALCC.
- Work more closely with the SALCC in organizing school visits aimed at informing students of the various programs of study at the SALCC, the entry requirements and what is expected of them at that level of study.

Students Services Unit

The Students Services Unit of the SALCC:

- Should develop effective programs aimed at identifying the poor performers and at-risk students and provide the necessary support and guidance to same.
- Improve the acceptance packages given to students upon acceptance to the SALCC.
- Should conduct annual school fairs in collaboration with the Ministry of Education, private and public sector and parents aimed at sensitizing prospective students on the programs of the SALCC and how they align with career options.
- There should be a more effective marketed bursary information system for students.

- Should establish and introduce a more robust, effective, supportive orientation program which is sustainable, supportive, and informative.

Employer Representatives

Employer representatives should:

- Be more involved and interested in the development and progress of the SALCC. For the purpose of this exercise, the employer representatives are identified but not limited to the secretariat of the employer federation, the St Lucia Chamber of Commerce, the Ministry of the Public Service, the St. Lucia Tourism and Hotel Association, the Manufacturers Association, the Credit Union Sector, the Construction Sector, the Tourism Sector and the Bankers Association should work closely with the SALCC in working committees providing reviews of programs, feedback and recommendations, funding support, technical support etc. where necessary, aimed at effective implementation of curriculum that meets their diverse need. A working committee comprised of an employer representative, with the SALCC academic board that should meet biannually to obtain feedback from them in order to tailor the curriculum and program to meet their needs.
- Should be engaged to provide advice and support for the design of a standardized, seamless, sustainable work-orientation program for the SALCC. They should also be involved in the design of the post-internship appraisal where necessary, aimed at enhancing the academic experience of students and preparing them for the world of work.

Lecturers

Lecturers of the SALCC should:

- Utilize varied best practices, teaching methods aimed at accommodating the different learning styles of students, including but not limited to the use of appropriate modern

technologies, teaching materials that can help visual learners visualize concepts to better absorb the teaching material.

- There must be a culture of teaching and learning by exploring ways of enhancing students' critical thinking and problem-solving skills and effectively communicate skills in both oral and written forms, and the introduction and engagement in activities that would harness student motivation, creativity, and excellence.

Student-Based Recommendations

SALCC Students

Students of the SALCC should:

- Endeavour to play a critical role in their academic performance. Thus, students need to explore opportunities to engage and adapt to their new learning environment. They must accept that this is a student-centered learning environment and that they play a critical part in their learning experiences at the SALCC. They must familiarize themselves with the consequences of poor performance and the rewards or benefits of academic excellence.
- Be encouraged to set clear learning goals as well as to develop a clear understanding and appreciation for what is required for success.
- Be encouraged to take advantage of those opportunities aimed at facilitating a positive learning experience. Research by Morrison (2005) shows that the benefits of tutoring and small group programs are vital to enhancing both student communication and interpersonal skills.

Recommendations for Future Research

- To conduct research on what impact the COVID-19 pandemic had and continue to have on academic performance with respect to school-based and student-based factors.

- It is necessary to conduct further research on the influence of home-based factors on academic performance as this area was not explored in this study.
- It is necessary to conduct research into the reasons for the decreased enrollment from semester one to semester two.
- It is necessary to conduct a comparative analysis on first year and second-year students on the impacts of school-based and student-based factors on sustainable academic performance.
- The replication of a similar study should be conducted in other Caribbean territories where community colleges exist. The intention is to compare the similarities and the differences in the factors which influence academic performance.
- To conduct research on form 5 students within the secondary school system to determine their readiness for tertiary level of education with particular reference to student-based and school-based factors.

Transition related challenges of students from secondary school to the SALCC cannot be understated as this can have an impact on the sustainable academic performance of learners.

While there are positive and negative correlations between student and school-based factors with sustainable academic performance, there is a need to focus on the significant factors which contribute to the sustainable academic performance of students at the SALCC. The study revealed that prior academic performance was the only student-based variable that showed a statistically significant impact. While type of school and classroom facilities are the only school-based variable that showed a statistically significant impact. It was imperative therefore, to identify strategic interventions such as development of a structured transition program, setting

learning goals, provision of adequate classroom facilities, effective scheduling of courses and adequate provision of human resources to meet learner needs.

This study forms the basis for further study on sustainable academic performance. Among the various areas for further research, there is a need to study the level of preparedness of learners at the secondary school for the transition. Additionally, there is a need to replicate this similar study other Caribbean territories where community colleges exist. The intention is to compare the similarities and the differences in the factors which influence sustainable academic performance. In doing so, these findings will contribute to studies on sustainable academic performance at the tertiary level of education, particularly in the context of the Caribbean region.

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APPENDICES

Appendix A: Informed Consent Form



Informed Consent Form

Part 1: Debriefing of Participants

Student's Name:

Sancha Meliat

smeliat@apps.salcc.edu.lc

Student's E-mail Address:

R1801D4393199

Student ID #:

Supervisor's Name: Dr. Augustine Terfot Ngwana

University Campus: Unicaf University Malawi (UUM)

Program of Study: UUM: PhD Doctorate of Philosophy - Education

Date: 06-Dec-2020

Research Project Title: Investigation of School and Student-Based Factors on Sustainable Academic Performance at the Sir Arthur Lewis Community College, St. Lucia.

The researcher aims to empirically explore the underlying school-based factors and student-based factors which contribute to the gaps and challenges for a significant number of students and the inability to sustain the academic performance once admitted into the Sir Arthur Lewis Community College. You have been identified as a participant because you are someone who can make a meaningful and significant contribution to this study. It is my hope at the end of this investigation to suggest necessary modifications, strategies, policies, and interventions that will influence a change in policy at the SALCC level, the Government level, Ministry of Education and Curriculum Development that would facilitate the sustainable academic performance of students that would better prepare them for institutions of higher learning and the world of work.

The above-named Student is committed in ensuring participant's voluntarily participation in the research project and guaranteeing there are no potential risks and/or harms to the participants.

Participants have the right to withdraw at any stage (prior or post the completion) of the research without any consequences and without providing any explanation. In these cases, data collected will be deleted. All data and information collected will be coded and will not be accessible to anyone outside this research. Data described and included in dissemination activities will only refer to coded information ensuring beyond the bounds of possibility participant identification.

I, ensure that all information stated above
is true and that all conditions have been met.

Student's Signature: S. Melior

Appendix B: UREC Decision



UREC Decision, Version 2.0



Unicaf University Research Ethics Committee Decision

Student's Name: Sancha Meliat

Student's ID #: R1801D4393199

Supervisor's Name: Dr Hameed Olalekan Bolaji

Program of Study: UUM: PhD Doctorate of Philosophy - Education

Offer ID /Group ID: O22099G22170

Dissertation Stage: 3

Research Project Title: INVESTIGATION OF SCHOOL AND STUDENT-BASED FACTORS ON SUSTAINABLE ACADEMIC PERFORMANCE AT SIR ARTHUR LEWIS COLLEGE, SANTA LUCIA

Comments:

REAF

5b - Disabilities - You should only include the participants who can provide the informed consent for themselves, therefore, people with mental disabilities should not take part in the research. Please add this information to the section.

5f - there should be no relationship between the researcher and the participants. The students that the researcher is currently teaching and the staff members that are supervised by the researcher should be excluded in order to avoid conflict of interest.

Informed consent:

explain why and how you have chosen this person to participate in this research

Students Services Unit Interview Questions, Guidance Counsellor Questionnaire, Employer Questionnaire, Secondary School Teacher Questionnaire, Graduates Questionnaire

Add age in years.

General comment: Use the PDF template provided by the course. Complete the form without converting the form to Word format and back. Do not exceed the word limit indicated for each answer.

Decision*: B. Approved with comments for minor revision

Date: 27-May-2021

*Provisional approval provided at the Dissertation Stage 1, whereas the final approval is provided at the Dissertation stage 3. The student is allowed to proceed to data collection following the final approval.

Appendix C: Ethics Application



REAF_DS - Version 3.1AP



UNICAF UNIVERSITY RESEARCH ETHICS APPLICATION FORM DOCTORAL STUDIES

UREC USE ONLY:

Application No:

Date Received:

Student's Name: Sancha Meliat

Student's E-mail Address: smeliat@apps.salcc.edu.lc

Student's ID #: R1801D4393199

Supervisor's Name: Dr. Hameed Bolaji

University Campus: Unicaf University Malawi (UUM)

Program of Study: UUM: PhD Doctorate of Philosophy - Education

Research Project Title: INVESTIGATION OF SCHOOL AND STUDENT-BASED FACTORS ON
SUSTAINABLE ACADEMIC PERFORMANCE AT SIR ARTHUR LEWIS COLLEGE,
SAINT LUCIA.

1. Please state the timelines involved in the proposed research project:

Estimated Start Date: 10-Jan-2021

Estimated End Date: 31-Dec-2021

2. External Research Funding (if applicable):

2.a. Do you have any external funding for your research?

☐ YES ☒ NO

If YES, please answer questions 2b and 2c.

- 2.b. List any external (third party) sources of funding you plan to utilise for your project. You need to include full details on the source of funds (e.g. state, private or individual sponsor), any prior / existing or future relationships between the funding body / sponsor and any of the principal investigator(s) or co-investigator(s) or student researcher(s), status and timeline of the application and any conditions attached.

N/A

- 2.c. If there are any perceived ethical issues or potential conflicts of interest arising from applying or and receiving external funding for the proposed research then these need to be fully disclosed below and also further elaborated on, in the relevant sections on ethical considerations later on in this form.

N/A

3. The research project

3.a. Project Summary:

In this section fully describe the purpose and underlying rationale for the proposed research project. Ensure that you pose the research questions to be examined, state the hypotheses, and discuss the expected results of your research and their potential.

It is important in your description to use plain language so it can be understood by all members of the UREC, especially those who are not necessarily experts in the particular discipline. To that effect ensure that you fully explain / define any technical terms or discipline-specific terminology (use the space provided in the box).

The researcher aims is to empirically explore the underlying school-based factors and student-based factors which contribute to the gaps and challenges for a significant number of students and the inability to sustain the academic performance once admitted into the Sir Arthur Lewis Community College.

To accomplish this study the following research questions will be explored:

1. What are the school-based factors that determine the academic performance of students in Sir Arthur Lewis Community College in Saint Lucia?
2. What are the student-based factors that determine the academic performance of students in Sir Arthur Lewis Community College in Saint Lucia?
3. Does secondary education teacher on teaching practice exercise at the nation's secondary schools influence the performance of students?
4. What is the academic performance of students at secondary education level in Saint Lucia?
5. What is the performance of students at Sir Arthur Lewis Community College in Saint Lucia?
6. Does school-based factor influence the academic performance of students in Sir Arthur Lewis Community College in Saint Lucia?
7. Does student-based factor influence the academic performance of students in Sir Arthur Lewis Community College?

Research Hypotheses:

HO1: There is no significant difference between the academic performance of students and the teachings of secondary school teachers on teaching practice exercise.

HO2: There is no significant difference between the academic performance of students and school-based factors.

HO3: There is no significant difference between the academic performance of students and student-based factors.

At the end of this study the researcher will identify the factors that influence the sustainable academic performance of students at the SALCC. Additionally, the researcher will develop the capacity and ability to recommend and influence necessary changes, modifications, policies and interventions at the SALCC level, the Government level by extension the Ministry of Education and Curriculum Development.

3.b. Significance of the Proposed Research Study and Potential Benefits:

Outline the potential significance and/or benefits of the research (use the space provided in the box).

This investigation would be beneficial to the following stakeholders; researchers, students, lecturers, teachers and other administrators. With this information the researcher would be able to comprehend the factors which influence the sustainable academic performance of students at the SALCC, and how it could affect the students' capacity to transfer their knowledge into the workplace. Additionally, this information would guide the researcher to develop policies and interventions designed at bridging the gap which exists so that the various stakeholders responsible for these students can adequately prepare them for higher education and the world of work. Students would gain an insight into the issues that affect their ability to sustain their academic performance and cultivate strategies that would allow them to improve and sustain their academic performance during their two years of study at the SALCC. Lecturers of the SALCC and secondary school teachers at the form 5 level would be able to identify ways of meeting the needs of students that would promote sustainable academic performance. Moreover, citizens, the SALCC and its future graduates, the Government of Saint Lucia by extension the Ministry of Education and Curriculum Development would benefit by prompting the required policy amendments, strategies, and interventions in the pursuit of sustainable academic performance among students that would adequately prepare them of higher education and the world of work.

4. Project execution:

4.a. The following study is an:

- ☐ experimental study (primary research)
- ☐ desktop study (secondary research)
- ☐ desktop study using existing databases involving information of human/animal subjects
- ☒ Other

If you have chosen 'Other' please Explain:

For this study, the researcher endeavours to use a mixed methods approach using both quantitative and qualitative data collection methods. Primary data will be collected through the use of questionnaires, an observational schedule as well as a document analysis of the internship assessment forms received from employers. These forms of data collection would allow the data gathered to be evaluated, patterns observed as well as comparison made of the data.

4.b. Methods. The following study will involve the use of:

Method	Materials / Tools
Qualitative:	<input type="checkbox"/> Face to Face Interviews <input type="checkbox"/> Phone Interviews <input type="checkbox"/> Face to Face Focus Groups <input type="checkbox"/> Online Focus Groups <input checked="" type="checkbox"/> Other *
Quantitative:	<input type="checkbox"/> Face to Face Questionnaires <input checked="" type="checkbox"/> Online Questionnaires <input type="checkbox"/> Experiments <input type="checkbox"/> Tests <input checked="" type="checkbox"/> Other *

*If you have chosen 'Other' please Explain:

Observation Schedule: The researcher would observe the teaching methods and practices used at a sample of the nation's secondary schools, where the researcher would listen and record what transpires in the classroom during a lesson to support information, which was gathered through the questionnaire.

Additionally, the researcher would conduct a document analysis of the internship assessment forms to obtain feedback from employers participating in the internship program on their performance of students.

5. Participants:

5 a. Does the Project involve the recruitment and participation of additional persons other than the researcher(s) themselves?

- ☒ YES If YES, please complete all following sections.
- ☐ NO If NO, please directly proceed to Question [7](#).

5 b. Relevant Details of the Participants of the Proposed Research

State the number of participants you plan to recruit, and explain in the box below how the total number was calculated.

Number of participants

939

The total population is 8,007 participants. The sample size which would be participating in this study would be adopted through the proportional sampling technique of Cohen, Marion and Morrison (2004). Thus, the sample size would be 939 at a 95% confidence level, with a standard deviation of .5 and confidence interval or margin of error of +/- 3% (.03).

Describe important characteristics such as: demographics (e.g. age, gender, location, affiliation, level of fitness, intellectual ability etc). It is also important that you specify any inclusion and exclusion criteria that will be applied (e.g. eligibility criteria for participants).

Age range

From

16

To

62

Gender



Female



Male

Eligibility Criteria:

- Inclusion criteria

1. All participants would have attained the age of adulthood (16 years) in accordance with the laws of Saint Lucia.
2. Individuals identified as participants would be associated with the Sir Arthur Lewis Community College.

- Exclusion criteria

Students from the Department of Health Sciences as well as Teacher Education and Educational Administration would not be included in this study because the student intake for these departments do not come from the nation's secondary school system.

Disabilities

Participants who can provide informed consent for will participate in this study, therefore, participants with mental disabilities should not participate.

Other relevant information (use the space provided in the box):

5 c. Participation & Research setting:

Clearly describe which group of participants is completing/participating in the material(s)/ tool(s) described in 5b above (use the space provided in the box).

Online Questionnaires:

180 Students, 11 Lecturers, 1 Staff of the Students Services Unit, 3 Guidance Counselors, 5 Employers, 30 Secondary School Teachers, 709 Graduates.

Observational Schedules: The aforementioned Secondary School Teachers.

Review of Internship Assessment Forms: The aforementioned Graduates.

5 d. Recruitment Process for Human Research Participants:

Clearly describe how the potential participants will be identified, approached and recruited (use the space provided in the box).

Permission will be obtained from the Vice Principal of the SALCC to recruit students, faculty and staff to participate in the study. The Ministry of Education charged with the responsibility of the nation's secondary schools, through the office of Chief Education Officer, will be written to, seeking approval to recruit guidance counsellors and form 5 secondary school teachers to participate in this study. Permission will be obtained from employer/business establishments participating in the SALCC internship programs for access to their employer/business representatives to participate in the study. Once permission was granted, letters of invitation to participate and consent forms were issued to these participants outlining the reason for choosing them and obtaining their consent. Letters of invitation to participate and consent forms were issued to graduates soliciting their participation, outlining the reason for choosing them and obtaining their consent.

5 e. Research Participants Informed Consent.

Select below which categories of participants will participate in the study. Complete the relevant Informed Consent form and submit it along with the REAF form.

Yes	No	Categories of participants	Form to be completed
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Typically Developing population(s) above the maturity age *	Informed Consent Form
<input type="checkbox"/>	<input type="checkbox"/>	Typically Developing population(s) under the maturity age *	Guardian Informed Consent Form

* Maturity age is defined by national regulations in laws of the country in which the research is being conducted.



5 f. Relationship between the principal investigator and participants.

Is there any relationship between the principal investigator (student), co-investigators(s), (supervisor) and participant(s)? For example, if you are conducting research in a school environment on students in your classroom (e.g. instructor-student).

☐ YES ☒ NO

If YES, specify (use the space provided in the box).

6. Potential Risks of the Proposed Research Study.

6 a. i. Are there any potential risks, psychological harm and/or ethical issues associated with the proposed research study, other than risks pertaining to everyday life events (such as the risk of an accident when travelling to a remote location for data collection)?

☐ YES ☒ NO

If YES, specify below and answer the question 6 a.ii.

6 a.ii Provide information on what measures will be taken in order to exclude or minimise risks described in 6.a.i.

N/A

6 b. Choose the appropriate option

	Yes	No
i. Will you obtain written informed consent form from all participants?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Does the research involve as participants, people whose ability to give free and informed consent is in question?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii. Does this research involve participants who are children under maturity age? If you answered YES to question iii, complete all following questions. If you answered NO to question iii, do not answer Questions iv, v, vi and proceed to Questions vii, viii, ix and x.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Will the research tools be implemented in a professional educational setting in the presence of other adults (i.e. classroom in the presence of a teacher)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v. Will informed consent be obtained from the legal guardians (i.e. parents) of children?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
vi. Will verbal assent be obtained from children?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
vii. Will all data be treated as confidential? If NO, explain why confidentiality of the collected data is not appropriate for this proposed research project, providing details of how all participants will be informed of the fact that any data which they will provide will not be confidential.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
viii. Will all participants /data collected be anonymous? If NO, explain why and describe the procedures to be used to ensure the anonymity of participants and/or confidentiality of the collected data both during the conduct of the research and in the subsequent release of its findings.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Yes	No
ix. Have you ensured that personal data and research data collected from participants will be securely stored for five years?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
x. Does this research involve the deception of participants? If YES, describe the nature and extent of the deception involved. Explain how and when the deception will be revealed, and who will administer this debrief to the participants:	<input type="checkbox"/>	<input checked="" type="checkbox"/>

6 c. i. Are there any other ethical issues associated with the proposed research study that are not already adequately covered in the preceding sections?

☐ Yes ☒ No

If YES, specify (maximum 150 words).

6.c.ii Provide information on what measures will be taken in order to exclude or minimise ethical issues described in 6.c.i.

N/A

6 d. Indicate the Risk Rating.

☐ High ☒ Low

7. Further Approvals

Are there any other approvals required (in addition to ethics clearance from UREC) in order to carry out the proposed research study?

☒ YES ☐ NO

If YES, specify (maximum 100 words).

Institutional permission will be required to complete this research at the Sir Arthur Lewis Community College. Permission will also be required from the Ministry of Education charged with the responsibility for the nation's public educational institutions to conduct research within the nation's secondary schools system.

8. Application Checklist

Mark ✓ if the study involves any of the following:

- ☐ Children and young people under 18 years of age, vulnerable population such as children with special educational needs (SEN), racial or ethnic minorities, socioeconomically disadvantaged, pregnant women, elderly, malnourished people, and ill people.
- ☐ Research that foresees risks and disadvantages that would affect any participant of the study such as anxiety, stress, pain or physical discomfort, harm risk (which is more than is expected from everyday life) or any other act that participants might believe is detrimental to their wellbeing and / or has the potential to / will infringe on their human rights / fundamental rights.
- ☐ Risk to the well-being and personal safety of the researcher.
- ☐ Administration of any substance (food / drink / chemicals / pharmaceuticals / supplements / chemical agent or vaccines or other substances (including vitamins or food substances) to human participants.
- ☐ Results that may have an adverse impact on the natural or built environment.

9. Further documents

Check that the following documents are attached to your application:

		ATTACHED	NOT APPLICABLE
1	Recruitment advertisement (if any)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Informed Consent Form / Guardian Informed Consent Form	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	Research Tool(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	Gatekeeper Letter	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	Any other approvals required in order to carry out the proposed research study, e.g., institutional permission (e.g. school principal or company director) or approval from a local ethics or professional regulatory body.	<input checked="" type="checkbox"/>	<input type="checkbox"/>



10. Final Declaration by Applicants:

- (a) I declare that this application is submitted on the basis that the information it contains is confidential and will only be used by Unicaf University for the explicit purpose of ethical review and monitoring of the conduct of the research proposed project as described in the preceding pages.
- (b) I understand that this information will not be used for any other purpose without my prior consent, excluding use intended to satisfy reporting requirements to relevant regulatory bodies.
- (c) The information in this form, together with any accompanying information, is complete and correct to the best of my knowledge and belief and I take full responsibility for it.
- (d) I undertake to abide by the highest possible international ethical standards governing the Code of Practice for Research Involving Human Participants, as published by the UN WHO Research Ethics Review Committee (ERC) on <http://www.who.int/ethics/research/en/> and to which Unicaf University aspires to.
- (e) In addition to respect any and all relevant professional bodies' codes of conduct and/or ethical guidelines, where applicable, while in pursuit of this research project.



I agree with all points listed under Question 10

Student's Name: Sancha Meliat

Supervisor's Name: Dr. Hameed Bolaji

Date of Application: 31-Dec-2020

Important Note:

Save your completed form (we suggest you also print a copy for your records) and then submit it to your UU Dissertation/project supervisor (tutor). **In the case of student projects, the responsibility lies with the Faculty Dissertation/Project Supervisor.** If this is a student application, then it should be submitted via the relevant link in the VLE. Please submit only electronically filled in copies; **do not** hand fill and submit scanned paper copies of this application.

Appendix D: Application to the MOE for Permission to Conduct Research



MINISTRY OF EDUCATION, INNOVATION, GENDER RELATIONS AND SUSTAINABLE
DEVELOPMENT

RESEARCH IN EDUCATION

Application For Permission

Corporate Planning Unit
2018-2020

Persons seeking assistance from the Department of Education in the conduct of their research are kindly required to complete the attached form and return to the Research Officer in the Corporate Planning Unit.

RESEARCH IN EDUCATION

The Ministry of Education, Innovation, Gender Relations and Sustainable Development through the Research Officer provides support to students/persons conducting research in education. This support involves access to available relevant documentation/literature, consultation on the research process and topics outlined in the Ministry's Research Agenda.

Persons conducting research in the field of education, innovation, gender relations and sustainable development are continually encouraged to *share the findings and recommendations emanating from their work*. This will allow the Department of Education to gain access to empirical data that can inform the various initiatives aimed at improving the entire education system. Further, knowledge of the work done by researchers in the field of education will assist in the revision of the Ministry's Research Agenda and greatly reduce duplication of research in similar areas.

Persons seeking assistance from the Department of Education in the conduct of their research are kindly required to complete the attached form and return to the Research Officer in the Corporate Planning Unit.

Please be informed that the information presented will assist the Department of Education in updating its database of research providers and work done to date in the area of Education.

SAINT LUCIA

Ministry of Education, Innovation, Gender Relations and Sustainable Development

Application for Permission to Undertake Research in Public Schools

A. (Please write legibly)

RESEARCHER:

Surname: Meliat First Name:Sancha.....

Gender: Male ☐ Female ☒ Other ☐

Address: Ravine Chabot, Castries, St. Lucia.

Email Address: smeliat@apps.salcc.edu.lc

Telephone Number(s): Mobile: 284-2992

School/Institution: UNICAF UNIVERSITY.

Department/Faculty: Education.

Programme of Study: PHD in Education..... Year: 2018-2021.....

Level: Bachelor Masters PHD ✓ Other _____

Title of Study: Investigation of School and Student-Based Factors on Sustainable Academic Performance at Sir Arthur Lewis Community College, Saint Lucia.

Completion date of Programme of study: December, 2021.

Research Topic: Sustainable Academic Performance.

Objective(s) of Research:

- (1) Investigate the school-based factors that determine the academic performance of students in Sir Arthur Lewis Community College in Saint Lucia.
- (2) Examine the student-based factors that determine the academic performance of students in Sir Arthur Lewis Community College in Saint Lucia.
- (3) Assess secondary education teachers on teaching practices at the nation's secondary schools in Saint Lucia.
- (4) Examine the academic performance of students at the secondary education level in Saint Lucia.
- (5) Examine the performance of students at Sir Arthur Lewis Community College in Saint Lucia.
- (6) Find out the influence of school-based factors on the academic performance of students in Sir Arthur Lewis Community College in Saint Lucia.
- (7) Assess the influence of student-based factors on the academic performance of students in Sir Arthur Lewis Community College.

Data required for: Long essay ☐ Dissertation/Thesis ☒ Publication ☐

School(s) where research is to be carried out: (Please List)

1. St. Joseph's Convent
2. Entrepot Secondary School
3. Stanley Jon Odum Memorial School
4. Anse Ger Secondary School
5. Choiseul Comprehensive Secondary School
6. Vieux Fort Secondary School
7. Soufriere Comprehensive Secondary School
8. Grande Riviere Secondary School
9. Leon Hess Secondary School
10. Baboneau Secondary School

Proposed Sample*

- (3) Guidance Counsellors from the above-mentioned secondary schools to identify what is being done at the secondary schools in preparing students for post-secondary level education and the issues highlighted by students in preparing for post-secondary level education.
- (3) form 5 teachers from each the above-mentioned secondary schools will be surveyed to obtain their input on the curriculum in preparing secondary school students for post-secondary education. Additionally, these classes will be observed in order to assess their teaching strategies in preparing secondary school students for post-secondary education. Subjects include:

SCHOOL	SUBJECTS
St. Joseph's Convent	Social Studies, Physics and Food and Nutrition
Entrepot Secondary School	English, Mathematics and EDPM
Stanley Jon Odum Memorial School	English, Mathematics, and IT
Anse Ger Secondary School	P. O. A, P.O.B and Social Studies
Choiseul Comprehensive Secondary School	P. O. A, P. O. B and EDPM
Vieux Fort Secondary School	IT, Social Studies and Physics
Soufriere Comprehensive Secondary School	Food and Nutrition, French, and Spanish
Grande Riviere Secondary School	French, Spanish, and Agriculture
Leon Hess Secondary School	English, Mathematics and Technical Drawing
Baboneau Secondary School	Agriculture, Technical Drawing and Physics

Estimated duration of research in school(s): From: 10th January 2021 To: 12th February, 2021

Documents/Materials obtained from the Department of Education: *(Please List if applicable)*

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Signature of Applicant:

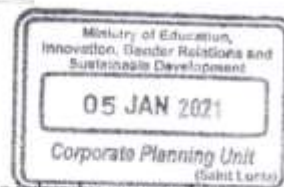
[Signature]

Date: 31st December, 2020

B. Tutor's Approval (where applicable)

The above mentioned research work is being carried out under my supervision.

Tutor's Name: **Dr. Hameed O. Bolaji** Signature: _____



C. Department of Education – Official Approval

The above request for permission to carry out research in Public Schools is hereby approved according to the conditions overleaf.

Signature of Authorizing Officer: _____ Date: 5/01/21
Research Officer

Conditions for the approval of a request to undertake research in Public Schools

Research work is permitted to be carried out in Public Schools only if the following conditions are accepted and satisfied:

1. Requests for permission to carry out research work in Public Schools must be written on the prescribed form obtainable from the Corporate Planning Unit of the Ministry of Education, Innovation, Gender Relations and Sustainable Development.
2. The completed application form must be submitted for approval to the Research Officer, Ministry of Education, Innovation, Gender Relations and Sustainable Development at least two (2) weeks prior to the commencement of the research.
3. The approved request form showing a signed approval must be presented to the Principal or designated representative where the research work is to be carried out.
4. All research work is to be carried out at the discretion of the Principal.
5. The Ministry of Education, Innovation, Gender Relations and Sustainable Development reserves the right to be provided a full copy of the study.
6. A copy of the abstract must be submitted to the Research Officer, Ministry of Education, Innovation, Gender Relations and Sustainable Development within two (2) months of the completion of the research.
7. The researcher is to observe strict confidentiality during his/her work in schools. All management of data must be in accordance with the Statistics Act of 1973

8. A permission to carry out research work in Public Schools may be withdrawn.
9. Parental consent must be obtained for all research which includes respondents who are students under the age of 16. *Sample of this consent form should be attached to the application for permission form.*
10. **A copy of the research instruments (e.g questionnaire, interview guide) and where applicable ethics or CUREC form should be attached to application.**

Appendix E: Letter of Approval to Conduct Research at the SALCC



**Sir Arthur Lewis Community College
Administration**

Communications on this subject
Should be addressed to:

PRINCIPAL

Ref: SALCC/2019/A1.7-467/P

3rd December 2019

Miss Sancha Meliat
Doctoral Student
UNICAF University
C/o Sir Arthur Lewis Community College
Morne Fortune
Castries

Morne Fortune
General Post Office
Castries LC04 101
Saint Lucia, West Indies
Tel: 758-457-7302/7300
Fax: 758-452-7901

Dear Miss Meliat

Approval is granted for you to conduct research on the *school and student-based factors that influence the sustainable academic performance of students at the Sir Arthur Lewis Community College.*

Best wishes in the execution of your research process.

Yours sincerely

**Merle St. Clair Auguste (Ph.D.)
VICE PRINCIPAL**

Copied to: Dr. Cathy James-Springer – Ag. Institutional Effectiveness Manager

Appendix F: Research Instruments



REAF_DS - Version 3.1

Student Questionnaire General Instructions

You are invited to complete the following questionnaire which aims to identify the school and student-based factors that influence the sustainable academic performance of students at the Sir Arthur Lewis Community College (SALCC). You are kindly requested to answer all the questions honestly. The questionnaire should only take 15 minutes to complete and it includes 20 questions.

By participating in this survey, you are indicating that you understand that your responses are anonymous and will not be identified with you in any way. You may skip any question that you find intrusive or offensive, but it will help me if you respond to as many questions as you feel comfortable with. If the space provided is inadequate feel free to attach additional paper to your questionnaire.

Please note that you have the right to withdraw at any stage (prior or post the completion) of the research without any consequences and without providing any explanation. In this case, the data collected will be deleted. Please complete all questions and make sure you follow the instructions for each question.

If you have any questions, please contact Sancha Meliat at 1-758-284-2992 or email: smeliat@apps.salcc.edu.jc



1. What gender do you identify with? **[Tick one option]**

- ☐ Female
☐ Male
☐ _____
☐ Prefer not to answer.

2. What is your age? **[Write the exact age in years]**

3. Please indicate the secondary school which you last attended.

4. Please indicate your program of study at the SALCC.

5. What is your year of study? **[Please indicate either 1st, 2nd or 3rd year]**

6. Why was this program of study selected?

7. How would you rate your ability to adjust from secondary school to the SALCC.

[Tick one option]

- ☐ Extremely easy ☐ Very Easy ☐ Somewhat Easy
☐ Not So Easy ☐ Not at All Easy



8. Please identify the major challenges which contribute to this experience? **[Tick**

the options that reflect your experience]

- ☐ New school environment.
- ☐ Heavy workload.
- ☐ Lack of resources
- ☐ Your expectations of your teachers
- ☐ Your expectations of the Sir Arthur Lewis Community College in meeting your needs.
- ☐ The change in teaching methods and practice.
- ☐ The teachers' expectations of you.

For the ones highlighted please explain.

9. Where you able to access support from the Sir Arthur Lewis Community College in helping to address the challenges highlighted above? **[Tick one option]**

- ☐ Yes ☐ No

If no, why?



10. Do you think that the number of contact hours for class are adequate? **[Tick**

one option]

☐ Yes ☐ No

11. Where you able to access the required text-book/reading material for class?

[Tick one option]

☐ Yes ☐ No

If no, please identify what impact if any that the absence of these had on your academic performance?

12. How often were you able to complete assignments on time? **[Tick one option]**

☐ Frequently ☐ Occasionally ☐ Rarely ☐ Never

13. How comfortable are you working on your own? **[Tick one option]**

☐ very uncomfortable ☐ uncomfortable
☐ neither ☐ comfortable
☐ very comfortable

14. How comfortable are you working in a group? **[Tick one option]**

☐ very uncomfortable ☐ uncomfortable
☐ neither ☐ comfortable
☐ very comfortable



15. Are you able to keep up with the demands of your program? **[Tick one option]**

☐ Yes ☐ No

If no, why?

16. Do you attend class regularly? **[Tick one option]**

☐ Yes ☐ No

If no, provide reasons for your absenteeism.

17. How would you describe your class interaction with your teacher? **[Tick one option]**

☐ Excellent
☐ Good
☐ Fairly Good
☐ No Interaction

If no interaction, please explain



18. What is the average ratio of students to a teacher in your classes? **[Tick one option]**

☐ 15-1 ☐ 20-1 ☐ 25-1 ☐ 30-1 ☐ 35-1

What impact if any does this ratio have on your learning experience?

19. How would you rate the classroom facilities? **[Tick one option]**

☐ Poor ☐ Fair ☐ Good ☐ Very Good ☐ Excellent

20. Please identify any other factors that have affected your academic performance at the SALCC.

21. Please identify the areas that you feel needs to be addressed at the SALCC to make your learning experience acceptable from registration to graduation.



Lecturer Questionnaire

General Instructions

You are invited to complete the following questionnaire which aims to identify the school and student-based factors that influence the sustainable academic performance of students at the Sir Arthur Lewis Community College (SALCC). You are kindly requested to answer all the questions honestly. The questionnaire should only take 15 minutes to complete and it includes 21 questions.

By participating in this survey, you are indicating that you understand that your responses are anonymous and will not be identified with you in any way. You may skip any question that you find intrusive or offensive, but it will help me if you respond to as many questions as you feel comfortable with. If the space provided is inadequate feel free to attach additional paper to your questionnaire.

Please note that you have the right to withdraw at any stage (prior or post the completion) of the research without any consequences and without providing any explanation. In this case, the data collected will be deleted. Please complete all questions and make sure you follow the instructions for each question.

If you have any questions, please contact Sancha Meliat at 1-758-284-2992 or email:

smeliat@apps.salcc.edu.jc



1. What gender do you identify with? **[Tick one option]**

- ☐ Female
☐ Male
☐ _____
☐ Prefer not to answer

2. What is your age? **[Write the exact age in years]**

3. How long have you been a lecturer?

4. What is your subject area of specialization?

5. What level of education you have completed? **[Tick the options which reflect your qualifications]**

- ☐ Bachelor's Degree
☐ Master's Degree
☐ Phd or higher
☐ Professional Qualification
☐ Teacher Education Training

6. What is your experience with students being accepted annually into the Sir Arthur Lewis Community College?

7. Do you think that they are prepared for college level work? **[Tick one option]**

- ☐ Yes ☐ No



If no, why?

8. Are you satisfied with the students' entry level academic qualifications? **[Tick one option]**

☐ Yes ☐ No

If no, why?

9. Do you think that the entry requirements of the College acceptable? **[Tick one option]**

☐ Yes ☐ No

If yes, why?

If no, why?



10. What are some of the identified common issues or challenges confronting students entering the SALCC from secondary school?

11. Are there any issues with the class size in terms of the student to teacher ratio?
[Tick one option]

☐ Yes ☐ No

If yes, please explain

12. Are you satisfied with the support and assistance given to the below average performers at the SALCC? [Tick one option]

☐ Yes ☐ No

If no, what do you think should be done to assist?

13. What is your experience with the students taking part in the internship program annually?



14. Do you think that the students are prepared for the internship program? **[Tick one option]**

☐Yes ☐No

If no, please explain

15. Do you have any issues with classroom location and infrastructure in terms of: **[Tick the options that reflect your experiences]**

☐lighting ☐layout ☐size ☐location
☐air circulation ☐visual aids

16. How prepared are students for class? **[Tick one option]**

☐Very Prepared ☐Somewhat Prepared ☐Not Prepared at All

17. What percentage of students present their assignments on time and meet deadlines?

[Tick one option]

☐0-20 ☐20-40 ☐40-60 ☐60-80 ☐80-100

18. How prepared are they for group work? **[Tick one option]**

☐Very Prepared ☐Somewhat Prepared ☐Not Prepared at All

19. Are you satisfied with the established academic performance assessment systems?

[Tick one option]

☐Yes ☐No

If no, please explain



What changes would you recommend?

20. Do you think that the present curriculum influence sustainable academic performance?

[Tick one option]

☐ Yes ☐ No

If no, advise ways in which it can be improved or adjusted.

21. How would you rate the current orientation program at the SALCC? **[Tick one option]**

☐ Extremely helpful ☐ Very Helpful ☐ Somewhat Helpful
☐ Not so helpful ☐ Not helpful at all

22. Please feel free to offer any advice, recommendations or suggestions aimed at contributing to sustainable academic performance of students at the SALCC.



Students Services Unit Interview Questions

General Instructions

You are invited to complete the following questionnaire which aims to identify the school and student-based factors that influence the sustainable academic performance of students at the Sir Arthur Lewis Community College (SALCC). You are kindly requested to answer all the questions honestly. The questionnaire should only take 15 minutes to complete and it includes 9 questions.

By participating in this survey, you are indicating that you understand that your responses are anonymous and will not be identified with you in any way. You may skip any question that you find intrusive or offensive, but it will help me if you respond to as many questions as you feel comfortable with. If the space provided is inadequate feel free to attach additional paper to your questionnaire.

Please note that you have the right to withdraw at any stage (prior or post the completion) of the research without any consequences and without providing any explanation. In this case, the data collected will be deleted. Please complete all questions and make sure you follow the instructions for each question.

If you have any questions, please contact Sancha Meliat at 1-758-284-2992 or email: smeliat@apps.salcc.edu.jc



1. What gender do you identify with? **[Tick one option]**

- ☐ Female
☐ Male
☐ _____
☐ Prefer not to answer

2. What is your age? **[Write the exact age in years]**

3. How long have you been a member of the Students Services Unit?

4. What are the current policies/systems employed at the SALCC, aimed at assisting students in adjusting to post-secondary school life?

5. Please identify the orientation process/system employed at the SALCC? Please explain.

6. What policy if any, exists in assisting students with their SALCC school experience?



7. Are these programs effective? **[Tick one option]**

☐ Yes

☐ No

If yes, explain

If no, explain

8. What are some of the common student reported issues or complains made to the Students Services Unit?

9. What systems are in place to assist and support low academic performers and provide support for them?



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If there are no systems in place, please recommend what could be implemented.

10. Please feel free to make recommendations, suggestions, policies/systems that can be implemented in influencing a sustainable academic performance at the SALCC.



Guidance Counsellor Questionnaire

General Instructions

You are invited to complete the following questionnaire which aims to identify the school and student-based factors that influence the sustainable academic performance of students at the Sir Arthur Lewis Community College (SALCC). You are kindly requested to answer all the questions honestly. The questionnaire should only take 15 minutes to complete and it includes 8 questions.

By participating in this survey, you are indicating that you understand that your responses are anonymous and will not be identified with you in any way. You may skip any question that you find intrusive or offensive, but it will help me if you respond to as many questions as you feel comfortable with. If the space provided is inadequate feel free to attach additional paper to your questionnaire.

Please note that you have the right to withdraw at any stage (prior or post the completion) of the research without any consequences and without providing any explanation. In this case, the data collected will be deleted. Please complete all questions and make sure you follow the instructions for each question.

If you have any questions, please contact Sancha Meliat at 1-758-284-2992 or email: smeliat@apps.salcc.edu.jc



1. What gender do you identify with? **[Tick one option]**

- ☐ Female
☐ Male
☐ _____
☐ Prefer not to answer

2. What is your age? **[Write the exact age in years]**

3. How long have you been a guidance counsellor at the secondary school level?

4. Which secondary school are you based?

5. Please identify the role of the guidance counsellor with reference to preparing students for CSEC and post-secondary education?

6. Are you satisfied with what is being done at the secondary school level in preparing students for post-secondary level training? **[Tick one option]**

☐ Yes ☐ No

If no, please indicate what can be done to assisting or preparing these students for post-secondary education.



7. What are some of the common issues, concerns, fears faced by students with reference to post-secondary education if any?

8. Are any of the graduates from the secondary school system returning for counselling because of challenges experienced at the SALCC? **[Tick one option]**

- ☐ Yes
☐ No

If yes, what are some of common issues?

9. Please provide recommendations on future strategies which can be used to ensure sustainable academic performance post secondary school.



Employer Questionnaire

General Instructions

You are invited to complete the following questionnaire which aims to identify the school and student-based factors that influence the sustainable academic performance of students at the Sir Arthur Lewis Community College (SALCC). You are kindly requested to answer all the questions honestly. The questionnaire should only take 15 minutes to complete and it includes 9 questions.

By participating in this survey, you are indicating that you understand that your responses are anonymous and will not be identified with you in any way. You may skip any question that you find intrusive or offensive, but it will help me if you respond to as many questions as you feel comfortable with. If the space provided is inadequate feel free to attach additional paper to your questionnaire.

Please note that you have the right to withdraw at any stage (prior or post the completion) of the research without any consequences and without providing any explanation. In this case, the data collected will be deleted. Please complete all questions and make sure you follow the instructions for each question.

If you have any questions, please contact Sancha Meliat at 1-758-284-2992 or email: smeliat@apps.salcc.edu.jc



1. What gender do you identify with? **[Tick one option]**

- ☐ Female
☐ Male
☐ _____
☐ Prefer not to answer

2. What is your age? **[Write the exact age in years]**

3. What is your job title within your organization?

4. How long have you been employed with the organization?

5. How satisfied are you with the crop of students sent on internship over the last 4 years?

[Tick one option]

- ☐ Extremely Satisfied ☐ Satisfied ☐ Not at All Satisfied

Please explain

6. What are some of the challenges/issues encountered with the students on internship over the last 4 years?



7. On a scale of 1-10, 10 being excellent how would you rate the average student's preparedness for the work environment in terms of their:

- a) Soft Skills _____
 b) Knowledge _____
 c) Skills Set _____

8. How willing are you to employ an SALCC graduate if there is a vacancy exists compared to another student from another learning institution? **[Tick one option]**

- ☐ Prepared ☐ Not Prepared

If not prepared, please explain why.

9. Do you think that the SALCC is meeting the needs of employers? **[Tick one option]**

- ☐ Yes ☐ No

If yes, explain

If no, explain



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10. What recommendations/suggestions if any, would you like to make concerning improving the quality of students being introduced under the internship program and prospective graduates of the SALCC.



Secondary School Teacher Questionnaire

General Instructions

You are invited to complete the following questionnaire which aims to identify the school and student-based factors that influence the sustainable academic performance of students at the Sir Arthur Lewis Community College (SALCC). You are kindly requested to answer all the questions honestly. The questionnaire should only take 15 minutes to complete and it includes 9 questions.

By participating in this survey, you are indicating that you understand that your responses are anonymous and will not be identified with you in any way. You may skip any question that you find intrusive or offensive, but it will help me if you respond to as many questions as you feel comfortable with. If the space provided is inadequate feel free to attach additional paper to your questionnaire.

Please note that you have the right to withdraw at any stage (prior or post the completion) of the research without any consequences and without providing any explanation. In this case, the data collected will be deleted. Please complete all questions and make sure you follow the instructions for each question.

If you have any questions, please contact Sancha Meliat at 1-758-284-2992 or email:

smeliat@apps.salcc.edu.jc



1. What gender do you identify with? **[Tick one option]**

- ☐ Female
☐ Male
☐ _____
☐ Prefer not to answer

2. What is your age? **[Write the exact age in years]**

3. How long have you been teaching at the secondary school level?

4. What is your subject area of specialization?

5. Which secondary school are you based?

6. What level of education you have completed? **[Tick the options which reflect your qualifications]**

- ☐ Bachelor's Degree
☐ Master's Degree
☐ Phd or higher
☐ Professional Qualification
☐ Teacher Education Training

7. How satisfied are you with the curriculum at the secondary school level in preparing students for the CSEC examination? **[Tick one option]**

- ☐ Extremely satisfied ☐ Very Satisfied ☐ Somewhat Satisfied
☐ Not Satisfied



Please explain.

8. How prepared are your students for post-secondary education? **[Tick one option]**

☐ Very Prepared ☐ Somewhat Prepared

☐ Not Prepared at All

Please explain.

9. What feedback if any have you received from current and past students at the SALCC in terms of the challenges experienced?



10. Are you satisfied with the existing systems for preparing students for sustainable academic performance post secondary education? **[Tick one option]**

☐ Yes ☐ No

If yes, why?

If no, what do you think should be done to ensure their sustainable academic performance post secondary education?

11. What recommendations if any, would you make for the improvement, adjustment of the curriculum and the system aimed at sustainable academic performance post secondary education?



Graduates Questionnaire

General Instructions

You are invited to complete the following questionnaire which aims to identify the school and student-based factors that influence the sustainable academic performance of students at the Sir Arthur Lewis Community College (SALCC). You are kindly requested to answer all the questions honestly. The questionnaire should only take 15 minutes to complete and it includes 10 questions.

By participating in this survey, you are indicating that you understand that your responses are anonymous and will not be identified with you in any way. You may skip any question that you find intrusive or offensive, but it will help me if you respond to as many questions as you feel comfortable with. If the space provided is inadequate feel free to attach additional paper to your questionnaire.

Please note that you have the right to withdraw at any stage (prior or post the completion) of the research without any consequences and without providing any explanation. In this case, the data collected will be deleted. Please complete all questions and make sure you follow the instructions for each question.

If you have any questions, please contact Sancha Meliat at 1-758-284-2992 or email:

smeliat@apps.salcc.edu.jc



1. What gender do you identify with? **[Tick one option]**

- ☐ Female
- ☐ Male
- ☐ _____
- ☐ Prefer not to answer

2. What is your age? **[Write the exact age in years]**

3. What year did you graduate from the Sir Arthur Lewis Community College?

4. What program of study did you complete?

5. What is the highest level of education you have completed? **[Tick one option]**

- ☐ Bachelor's Degree
- ☐ Master's Degree
- ☐ Phd or higher
- ☐ Professional Qualification

6. What is your current status? **[Tick one option]**

- ☐ Employed
- ☐ Unemployed
- ☐ Student

7. How prepared were you for the adjustment from secondary school to post-secondary training? **[Tick one option]**

- ☐ Very Prepared ☐ Somewhat Prepared ☐ Not Prepared at All

Please explain.



8. What were some of the challenges experienced at the SALCC with reference to:

- a) Course Work
- b) The Teaching Methods
- c) The Learning Environment
- d) The Facilities
- e) Your Interaction with Lecturers

9. Did you feel that you had the support and necessary systems to assist you through college life? **[Tick one option]**

☐ Yes ☐ No

If no, what was missing?

10. How would you rate your academic performance at SALCC in relation to secondary school? **[Tick one option]**

☐ Poor ☐ Fair ☐ Good ☐ Very Good ☐ Excellent

Please explain.



11. How well did SALCC prepare you for the work place or institutions of higher learning?

[Tick one option]

- ☐ Extremely Prepared
- ☐ Adequately Prepared
- ☐ Fairly Prepared
- ☐ Not Prepared

Please explain.

12. What recommendations or suggestions would you make for the orientation and support services system at the SALCC for the support and assistance of students. Additionally, what recommendations would you make that would assist with sustainable academic performance of students at the SALCC?



Secondary School Teachers Observation Schedule

You are invited to complete the following questionnaire which aims to identify the school and student-based factors that influence the sustainable academic performance of students at the Sir Arthur Lewis Community College (SALCC). You are kindly requested to answer all the questions honestly. The questionnaire should only take 15 minutes to complete and it includes 21 questions.

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Please note that you have the right to withdraw at any stage (prior or post the completion) of the research without any consequences and without providing any explanation. In this case, the data collected will be deleted. Please complete all questions and make sure you follow the instructions for each question.

If you have any questions, please contact Sancha Meliat at 1-758-284-2992 or email: smeliat@apps.salcc.edu.lc



1. Subject area to be observed?

2. Number of students are in the class:

3. Class form:

4. Did the teacher provide a lesson plan? **[Tick one option]**

☐ Yes

☐ No

5. Did the teacher outline the teaching strategies and methods of assessment in the lesson plan?

[Tick one option]

☐ Yes

☐ No

6. Did the teacher explain the objectives of the lesson? **[Tick one option]**

☐ Yes

☐ No

7. Rate the teacher's knowledge of the subject taught. **[Tick one option]**

☐ Very
satisfied

☐ Somewhat
satisfied

☐ Neither
satisfied nor
dissatisfied

☐ Somewhat
dissatisfied

☐ Very
dissatisfied

8. Did the teacher adapt the content to the level of the students' ability?

[Tick one option]

☐ Yes

☐ No

9. Rate the teaching method used. **[Tick one option]**

- ☐ Very Effective
 ☐ Somewhat Effective
 ☐ Neither effective nor ineffective
 ☐ Somewhat effective
 ☐ Very ineffective

10. Rate the method of assessment used. **[Tick one option]**

- ☐ Very Effective
 ☐ Somewhat Effective
 ☐ Neither effective nor ineffective
 ☐ Somewhat effective
 ☐ Very ineffective

11. Rate the students' ability to understand the lesson taught. **[Tick one option]**

- ☐ Very satisfied
 ☐ Somewhat satisfied
 ☐ Neither satisfied nor dissatisfied
 ☐ Somewhat dissatisfied
 ☐ Very dissatisfied

12. Did the teacher ensure that the students understood the concept taught before moving on with the lesson? **[Tick one option]**

- ☐ Yes
 ☐ No

13. Rate the teacher's interaction with students. **[Tick one option]**

- ☐ Very satisfied
 ☐ Somewhat satisfied
 ☐ Neither satisfied nor dissatisfied
 ☐ Somewhat dissatisfied
 ☐ Very dissatisfied

14. Did the students answer questions posed by students effectively? **[Tick one option]**

- ☐ Yes
 ☐ No

15. Was the teacher resourceful? **[Tick one option]**

- ☐ Yes
 ☐ No

16. Did the teacher use the appropriate teaching aids? **[Tick one option]**

- ☐ Yes
 ☐ No

17. Did the teacher show professionalism in her deportment? **[Tick one option]**

- ☐ Yes
 ☐ No

18. Did the teacher encourage learners to work collaboratively? **[Tick one option]**

- ☐ Yes
 ☐ No



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19. Did the teacher show enthusiasm for the lesson? **[Tick one option]**

☐ Yes ☐ No

20. Rate the overall execution of the lesson. **[Tick one option]**

☐ Very Effective ☐ Somewhat Effective ☐ Neither effective nor ineffective ☐ Somewhat effective ☐ Very ineffective