# Effect of Attendance on the Performance of Day and Evening Students 

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Kerry-Ann Barrett

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2018

# Abstract <br> Effect of Attendance on the Performance of Day and Evening Students by <br> Kerry-Ann Barrett 

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Project Study Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Education

Walden University
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#### Abstract

Several studies posit a positive relationship between class attendance and student performance. Grades for students enrolled in Introduction to Management during the fall 2015 semester at a community college in Jamaica revealed that evening students on average scored a grade higher than students enrolled in the day sections. Lecturers noted day students missed more classes than evening students but the relationship between attendance and performance was not known. The purpose of this correlational study was to determine the relationship between attendance and performance, measured by grades. Guided by Knowles's theory that adults are self-directed, this study was designed to explore the relationship between attendance and performance for first year day ( $\mathrm{n}=99$ ) and evening students ( $\mathrm{n}=40$ ). Pearson's Correlation was used to assess the correlation between students attendance and performance regardless of their attendance status. Additionally, independent $t$ tests were used to compare the means of day and evening students' attendance and performance variables. Findings revealed that attendance and performance were significantly positively associated. Further, findings indicated that there were significant differences in the mean performance and mean attendance variables between day and evening students. Students with partial matriculation attended fewer classes and performed poorer than students with full matriculation. To address the results, a policy recommendation was developed to provide guidance on attendance in the local setting. The study contributes to social change by offering an approach to class attendance as a means to improve students' grades.


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## Dedication

This study is dedicated to my parents.

## Acknowledgement

First and foremost, I give honor to my Lord and Savior Jesus Christ, for providing the strength necessary to complete this study. I want to thank my parents for their unwavering support throughout my studies and my friends for their prayers and enthusiasm when I crossed every hurdle. Finally and by no means least, I express gratitude to my committee chaired by Dr. Christian Teeter for the timely reviews and words of encouragement throughout the research process. The process of completing this study has been very rewarding, and has left a lasting impression on my own practice. My research skills have also be honed but most importantly, I'm able to through research and scholarship recommend or propose initiatives that will solve problems. This has been a worthwhile experience.

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## Section 1: The Problem

## The Local Problem

Grade reports for students enrolled in Introduction to Management during the fall 2015 semester revealed that evening students on average scored a grade higher than students enrolled in the day sections. The setting for the study is located at a community college in Jamaica. In 2015, there were 2561 students attending the institution. Six hundred and thirty one (631) of these students were business majors. One hundred and thirty nine (139) students were enrolled in Introduction to Management in the first semester of the academic year 2015-2016 for the first time. There were 40 students registered for evening sections and 99 students during the day.

Students enrolled in the evening sections are working adults that have selected classes in this manner to accommodate their employment. Day students are the typical traditional students based on their age and unemployed status. The tuition burden for day students is usually borne by their parents. The institution has seen an increase in nontraditional students seeking advancement in their careers. The socioeconomic reality of many students will necessitate them seeking employment in order to pay for school (Logan, Huges, \& Logan, 2016). Knowles assumption that adults have experiences that are a rich source of knowledge could be a possible explanation for evening students scoring higher (Merriam, Caffarella, \& Baumgartner, 2007). However, studies vary in explaining the effect of work experience on performance (Blicblau, Nelson, \& Dini, 2016; Darolia, 2013; Mounsey, Vandeley, \& Dickhoff, 2013; Uppal \& Mishra, 2014).

Another possible influence on reported grades could be class attendance. Lecturers noted that day students were more likely to be absent from their classes. Day students being more truant as opposed to evening students contradicts the findings of Prentice, Lee and deBurca (2017), whose study found that nonattenders were more likely to be evening students. Research related to attendance indicates that attendance has a positive effect on performance (Andrietti 2014; Englander, Wang, \& Betz, 2015; Mearman, Pacheco, Webber, Ivlevs, \& Rahman, 2014; Stellmack 2013; Teixeira, 2016). Studies that posit the positive effect of attendance on performance have advanced debates on a larger problem of attendance policy and academic freedom.

Pinto and Lohrey (2016) focused on a similar discussion as two business education professors and outlined their viewpoints on attendance policy. They note that even though attendance has been proven to have a positive effect on grade or performance, administrators and educators have to be mindful of the growing population of adult learners who are viewed as self-directed. Macfarlane (2013) viewed compulsory attendance policies as infantilizing adults rather than helping them to be more selfdirected. Macfarlane's (2013) view could be supported by Knowles' assumption of the adult learners being self-directing. According to the 2015 Student Handbook, the attendance policy requires students to attend a minimum of $90 \%$ of their classes or face the prospect of missing final examinations (Council of Community Colleges of Jamaica, 2015). This attendance policy as outlined in the 2015 Student Handbook has not been enforced because students were still allowed to sit examinations without meeting the minimum hours as is evidence from the source data in Appendix B.

## Rationale

At the community college that this study was conducted, only $37 \%$ of the 139 participants attended the minimum $90 \%$ of hours taught to sit the final examination. The average attendance for participants that attended in the evening was $14.55 \%$ higher than the average attendance percentage of participants that attended in day. Evening participants scored a grade higher than participants in the day. The problem of students receiving lower or higher grades because of attendance was identified in other institutions internationally (Andrietti 2014; Englander, Wang, \& Betz, 2015; Mearman, Pacheco, Webber, Ivlevs, \& Rahman, 2014; Stellmack 2013; Teixeira, 2016). The purpose of this study was to examine the relationship between attendance and academic performance for day and evening students in this local setting. In doing this, a correlation study was used that is quantitative in nature.

## Definition of Terms

The following terms are used throughout this project study and are essential to understanding key themes and ideas:

Academic freedom: This is freedom to pursue knowledge without unwarranted or unreasonable interference (Loreh, 2016).

Attendance: Operationalized as a percentage of teaching hours students are present for (Branson, Loftin, Hadley, Hartin, \& Devkota, 2016).

Mandatory or compulsory attendance policy: This is a policy that stipulates that students must attend classes or face some type of consequent (Macfarlane, 2013).

Performance: Operationalized as grades received for course work, final examination and the final grade (Branson et al., 2016).

Prior achievement: The level at which students met matriculation requirements to articulate into the program (Snyder, Lee-Partridge, Jarmoszko, \& D'Onofrio, 2014).

## Significance of the Study

This quantitative project study addressed a local problem by focusing specifically on attendance and how it relates to performance in a first year business education course. Much of the current research on the proposed topic was conducted in developed countries. This study can be useful to administrators and faculty in this locality as the findings can be used to influence student attendance through informing students of the relationship of attendance and performance as recommended by Teixeira (2016) and policy.

## Research Question and Hypotheses

Lecturers in the School of Business have noted poor attendance of day students. The grade report for the Introduction to Management course revealed that day students scored a grade lower than their counterparts taking the same course in the evening. A correlation study was used to determine the relationship between attendance and performance. Additionally, independent samples $t$ tests were used to compare the means of attendance and performance variables of day and evening students. Further based on Synder, et al, (2014) recommendation to control for prior achievement, independent samples $t$ tests were used to test the difference between attendance and performance of students who met full matriculation and students who partially matriculated since

Intoduction to Management was a first year course. The following research questions were used to guide the study:

RQ1: What is the relationship between attendance and performance for day and evening students in a first year business course?
$H_{0} 1$ : There is no relationship between attendance and performance for day and evening students in a first year business course
$H_{\mathrm{a}} 1$ : There is a positive/negative relationship between attendance and performance for day and evening students in a first year business course

RQ2: What is the difference in mean attendance between day and evening students?
$H_{0}$ 2: There is no difference in mean attendance between day and evening students
$H_{\mathrm{a}} 2$ : There is significant difference in mean attendance of day and evening students

RQ3: What is the difference in mean performance between day and evening students?
$H_{0} 3$ : There is no difference in mean performance between day and evening students
$H_{\mathrm{a}} 3$ : There is a significant difference in mean performance bewteen day and evening students

RQ4: What is the difference in mean attendance between students who fully matriculated and students who partially matriculated?
$H_{0} 4$ : There is no difference in mean attendance between students who fully matriculated and students who partially matriculated
$H_{\mathrm{a}} 4$ : There is significant difference in mean attendnance between students who fully matriculated and students who partially matriculated

RQ5: What is the difference in mean performance between students who fully matriculated and students who partially matriculated?
$H_{0} 5$ : There is no difference in mean performance between students who fully matriculated and students who partially matriculated
$H_{\mathrm{a}} 5$ : There is significant difference in mean performance between students who fully matriculated and students who partially matriculated

## Review of the Literature

## Introduction

The conceptual framework of the positive relationship between attendance and performance focused the literature review. Several journals and articles were used in this study. These included but were not limited to: Journal of Education for Business, Journal of Higher Education Theory and Practice, NACTA Journal, Higher Education Quarterly, and Teaching in Developmental Education. Databases used to conduct searches included Walden University, Education Source, ERIC, Sage Journals and Taylor and Francis Online. Key words used in searches for articles included: Attendance, performance, college attendance, business education and higher education. The dates of all peerreviewed primary research articles were from 2012 through 2018.

## Theoretical Foundation

Informed by the problem, Knowles' assumption of adult students being selfdirected is applicable to this study. Knowles saw the adult student as moving from a state of dependency to a self-concept that is self-directing (Knowles, 1968). According to Boucouvalas and Lawrence (2010), Malcom Knowles spoke to the adult leaner's ability to understand him or herself and be internally directed even in situations that were otherdirected, knowing when and how to learn and to take responsibility for his or her own learning. Students missing classes can be seen as a reason to enforce the current attendance policy following trends of other institutions in an attempt to improve grades (Macfarlane, 2013). However, this move may impose on students' self-directedness.

Many adult students are working to finance their education and may therefore be more predisposed to take responsibility for their own learning (Merriam et al. 2007). Based on Knowles' assumption, an argument can be made that because adult students are more self-directed, enforcing a compulsory attendance may not be necessary. Lukorera and Nyatanga's (2017) study revealed that students may choose not to be engaged in learning even with stipulated attendance policies. If students are not engaged, despite being forced to attend classes, then policy might be ineffective in achieving the intended goal. Conducting a study to determine how attendance and performance relates in this locality was a first step in reviewing the applicability of Knowles' assumption and determining if the current policy needed adjusting.

## The Relationship between Attendance and Performance

Studies reviewed indicated that attendance had a positive effect on performance (Golding, 2011; Kim, Kim, Park, \& Ha, 2015; Teixeira, 2016). Englander, Wang and Betz (2015) used regression models to predict the variables that affect performance of 53 students in an Introduction to Finance course. Englander et al. (2015) found class attendance to contribute significantly to student performance. Andrietti and Velasco (2015) conducted a quantitative study using survey data with Economics students to determine association of study time, lecture attendance and student performance. Results also indicated a positive relationship between performance and attendance (Andrietti \& Velasco, 2015). Andrietti found similar results in a 2014 study (Andrieti, 2014).

The positive relationship between attendance and performance extends beyond the faculty of Business Education. Levshankova, Hirons, Kirton, Knighting and Jinks (2018), conducted a quantitative study with 1347 undergraduate nursing students to examine the association between attendance and performance. A positive association was found between the two variables (Levshankova et al., 2018). Branson et al. (2016) conducted a correlational study to explore the relationship between attendance and course grade for 443 prenursing students. A positive relationship was established between the variables (Branson et al., 2016). Alexander and Hicks (2016) conducted a correlation study with the reports of 383 Psychology students to ascertain the relationship between attendance and performance. They concluded that attending classes is still relevant even with the advent of technology. Similarly, Landin and Pérez (2015) conducted a
correlation study with 342 students. The result indicated a positive relationship between attendance and performance.

Lyubartseva and Malik (2012) conducted a quantitative study aimed at identifying if attendance influenced student performance in lower and upper level Chemistry courses; of the students who attended a minimum of $95 \%$ of hours taught, $72.9 \%$ received a grade of B or higher. Lyubartseva and Malik (2012) recommended promoting attendance as a step in helping students perform better. Hamamcı and Hamamcı (2017) conducted a pre-test/post-test experimental study with 202 students to determine the relationship between class attendance and grades. Students were given a proficiency examination at the beginning of the 12 week period and then at the end of the period (Hamamci \& Hamamci, 2017). A positive relationship was established between attendance and performance (Hamamci \& Hamamci, 2017).

Horton, Wiederman, and Saint (2012) analyzed the lecture method and how it influenced student attendance, and found attendance to slightly influence student performance. The findings of Horton et al. (2012) were corroborated by other researchers who found absenteeism to negatively predict test performance (Green et al., 2012). There was one study however, that delineated that attendance could negatively affect grades when students were placed in groups. Chin and Lin (2013) posited that attendance could have a negative impact on performance in team based learning and suggested that potential distractions from peers dominated the beneficial effect of peer attendance. However, Jakobsen, McIlreavy, and Marrs (2014) found that attendance significantly positively influenced student performance in the peer group setting.

Khong, Dunn, Lim, and Yap (2016) conducted a study of 162 business students to ascertain perceptions on reasons for being present for lectures or to be absent. Khong, et al., (2016) found that female students perceived attending classes would lead to higher grades. However, male students stated that they would be less likely to attend a class if the period slotted for a lecture competed with a course work deadline. On the contrary, in Lin's 2014 study, gender was not a factor influencing student attendance. Generally students' missing classes negatively affected test scores (Lin 2014). Lin's (2014) findings were supported by Biktimirov and Armstrong (2015), which purported that students who attend more classes outperform students who miss classes. Eash, Seger, Windingstad and Lamb (2016) used unannounced quizzes to increase lecture attendance. Students that attended all classes earned at least a grade of $B$, students that scored a grade of $A$ attended at least $80 \%$ of lecturers (Eash, Seger, Windingstad, \& Lamb, 2016). There are other studies that produced results positing the positive relationship of attendance on student performance (Dean \& Murphy, 2013; Mearman et al., 2014; Rendleman, 2017; Stellmack, 2013).

## Attendance Policy and Academic Freedom

Teixeira (2016) recommended that teachers, in the first lecture, inform students of the relationship between attendance and performance suggesting having a flexible attendance policy, which is more in keeping with adult education. In contrast, Snyder et al. (2014) looked at the impact of the compulsory attendance policy and how it affects attendance. Students who were given the compulsory attendance policy were more likely to attend classes; however, student performance was dependent on prior achievement
(Snyder et al., 2014). A compulsory or mandatory policy is one that has a punitive measure attached if students do not attend (Macfarlane 2013). Macfarlane (2013) found that many universities have strengthened their attendance policies along with other learning practices to monitor performance. The focus of these universities based on Macfarlane's study is to promote presenteeism, which has opened debates on academic freedom and mandatory policies (Macfarlane, 2013).

Earlier studies like Higbee and Fayon (2006) found that courses that did not have mandatory attendance policies had a higher rate of absenteeism. Rendleman (2017) concluded that even though a relationship was established between attendance and performance it was not proven that there was a positive relationship between attendance policy and attendance or attendance policy and grades. Pinto and Lohrey (2016) detailed current debate on the use of a mandatory attendance policy and academic freedom. Pinto and Lohrey (2016) put forward arguments for and against attendance policy. Key arguments for a mandatory attendance policy include: the positive relationship between attendance and performance; the reasoning that when students show up for classes they are actually prepared for professional life; and because there are regulatory requirements that necessitate carefully tracking attendance (Pinto \& Lohrey, 2016).

Arguments against a mandatory attendance policy featured the ability of the lecturer to attract students through the quality of teaching (Pinto \& Lohrey, 2016). By attracting students, learners will want to attend classes not because they are forced to (Pinto \& Lohrey, 2016). The argument that class attendance is necessary to prepare students for professional life was countered by the fact that many adult learners are
already serving in professional capacities and are already accountable for their time (Pinto \& Lohrey, 2016). The general arguments put forward for mandatory policies are grounded in accountability, work preparation and student wellbeing (Macfarlane, 2013). Macfarlane (2013) argues that higher education is a voluntary activity that follows the compulsory secondary stage of education. Since post-secondary education is voluntary, students should have the freedom to learn how they choose and should not be penalized for the choices made. Academic freedom is not only for academics, but also for the scholar (Macfarlane, 2013).

## Other Considerations

Kearney and Graczyk (2014) presented the Response to Intervention (RtI) model, which looked at ways to boost attendance and address absenteeism. The RtI model described a decision-making process that follows predetermined steps in assigning evidence-based approaches founded on student need (Kearney \& Graczyk, 2014). RtI has three tiers. At the first tier regular attendance is promoted for all students (Kearney \& Graczyk, 2014). At the second tier there are targeted interventions for at-risk students, and then finally the third tier, that deals with students with chronic absenteeism (Kearney \& Graczyk, 2014). Rtl may be applicable to the local problem described above; however, prior to investing the institution's resources; a study must be conducted to inform further actions.

## Implications

A positive relationship was anticipated similar to the findings presented by the various studies highlighted in the review of literature. After data collection and analysis a
significantly positive relationship was established between attendance and performance. The finding of the influence of attendance on grades has implications for the institution's attendance policy. Data collected also indicated that the current attendance policy was not enforced. Results of the study may require a review of the current attendance policy.

## Summary

The debate of using a mandatory or flexible attendance policy in higher education has spanned over two decades (Petress 1996; Pinto and Lohrey 2016). The literature indicated that attendance has a positive impact on performance. The relationship between attendance and grades has caused some tertiary institutions to implement and enforce mandatory attendance policies. Notwithstanding, those in opposition of mandatory attendance policies put forward the argument of academic freedom and the assumption that adult students are self-directed. Reasons for absenteeism vary across institutions and studies. By examining the problem of day students receiving lower grades when compared to their counterparts in the evening through a quantitative approach, the association or influence of attendance on the academic performance of day and evening students enrolled in a first year business course at a Jamaican community college is better explained. With this explanation, administrators and faculty may be better informed when planning for first year courses. In addition, administrators and faculty may make informed decisions regarding the current attendance policy and plan interventions for absenteeism.

The following is an outline of the proceeding sections. Section 2 will present the methodology, which details the research design, approach, sample, setting,
instrumentation, protection of participants, and data analysis. Section 3 will present the project: description, evaluation plan and implications. Lastly, Section 4 will detail the reflections and conclusion of the project.

Section 2: The Methodology

## Introduction

During the fall of 2015, day students at my present institution in an Introduction to Management course scored on average a grade lower than students registered in the evening. The literature outlined in the preceding section suggested that this may be as a result of class attendance since day students attended a lower percentage of hours taught. An explanatory correlation research design was used to analyze archival data collected on a sample of business students enrolled in Introduction to Management for the first time. Purposive sampling was used in selecting participants. Permission was sought and granted from the Ministry of Education through the institutions IRB protocol. Pearson correlation was used to assess the relationship between the variables.

## Research Design and Approach

An explanatory correlation research design was used. This correlation study examined the association between performance and class attendance reported for students in the Introduction to Management class during the first semester of the academic year 2015-2016. Prior achievement was also considered. Sydner et al. (2014) found that students who were high achievers prior to taking a class scored better. Given that Introduction to Management is completed in the first semester of the program, prior achievement would take into consideration matriculation into the associate degree program. This design was chosen because this type of research aids in determining if two or more variables are related (Creswell, 2012). The focus of this study was to determine if there is an association between attendance and performance for day and evening
students. Independent samples $t$ tests were also used to describe, explore and compare the mean data collected.

Data was collected at one point in time. In addition, the requisite permissions were sought and granted for the use of students' data.

## Justification for the Research Design and Approach

## Setting and Sample

The setting for the study is located at a community college in Jamaica. The setting is therefore of great importance to me because I have the opportunity to propose change. The student body is $100 \%$ Jamaican. In 2015, there were 2561 students attending the institution. Six hundred and thirty one (631) of these students were business majors.

Purposive sampling was used in selecting participants. The type of purposive sampling that was used was that of total population sampling. This is commonly used when studying past experiences of particular groups within a larger population (Creswell, 2012). One hundred and thirty nine (139) students were enrolled in Introduction to Management in the first semester of the academic year 2015-2016 for the first time. To meet the study criteria students had to be enrolled in the Associate Degree in Business Studies, in their first semester and taking Introduction to Management for the first time.

## Instrumentation and Materials

Archival data was collected. Data was collected at one point in time. Some data such as grades were received electronically and data such as attendance was scanned from a hard copy into an electronic format. Data was stored on my personal computer that was password protected. Source data used in the analysis is placed in Appendix B.

## Data Collection and Analysis

Archival data was collected for analysis. Permission was sought and granted from the Ministry of Education through the institution's Institutional Review Board (IRB) protocol. The approval from the Ministry of Education in Jamaica was then submitted to the institution being studied. Once this approval was received the IRB application was submitted to the Walden University's IRB. The data collection process commenced after Walden University approved my IRB application. The IRB approval number for this study is 09-25-17-0473210.

The data collected was quantitative. Based on the literature review, it was identified that attendance had a positive influence on grades in the studies conducted. It was also recommended from previous literature that controlling for prior achievement would be beneficial in this type of study. Sources for this data included: Grades from the registry, attendance registers and student files for prior achievement. These variables are nominal. Source data used in the analysis has been placed in Appendix B.

Pearson's Correlation was used to test significance. This method measured the degree of linear relationship between attendance and performance. If $p<$ or $=.05$ the test is significant. That is, the relationship between attendance (percentage of hours attended) and performance (grades) is significant. If $p>.05$, the test is not significant. Independent samples $t$ tests were also used to compare means for attendance and performance of participants.

## Assumptions, Limitations, Scope and Delimitations

I assumed that the relationship between attendance and performance was positive. I also assumed that archival data would be sufficient in conducting this study. A limitation to this study was that it did not automatically establish cause and effect. This is because relationships between the variables signify patterns in the data that show connections between the variables. To prove cause and affect, the researcher would have to control for all extraneous variables. The only variable that was controlled for was prior achievement. As such, there may be other variables that can influence grades that were not considered. For example, student efficacy was not considered. Another limitation to the study was the sample. The sample consisted of $71 \%$ day students and $29 \%$ evening students based on student enrolment for the period being studied.

The scope of the study was to determine the relationship between attendance and performance for day and evening students. The study focused on business students in the first year of the program. The results could be different in the various faculties and for students enrolled in higher level courses. Future studies will explore other faculties and courses. Another delimitation was that no consideration was given to pedagogy and other factors that may influence student attendance. This is also an area of future research.

## Protection of Participants

The proposal of this study was submitted to the Walden University IRB for approval. Once approval was granted data collection commenced. Several safeguards were taken to ensure confidentiality and protection of the data collected. Once the data was collected a spreadsheet was created and students were assigned fictitious id numbers.

Data was stored on my personal computer that was password protected. Once the data was collated into the spreadsheet that was used in the analysis, the data was rechecked to ensure that the data used was correct before identifying markers were removed and source documents deleted or destroyed. All documents consisting of data provided for this study were discarded after data was collated and the finalized spreadsheet was developed.

## Data Analysis Results

For this project an explanatory correlation design was conducted to answer the first research question. In this type of study all participants are analyzed in a single group (Creswell, 2012). An analysis of attendance and performance documented for 139 first year business students enrolled in Introduction to Management in first semester of academic year 2015-2016 was completed with the goal of exploring the relationship between grades received and attendance. For the purpose of this project grades received include: coursework grade, final examination grade and final grade. The final grade is a combination of coursework and final examination grades. Attendance was operationalized as a percentage of hours attended. At the institution under study, the semester consists of 14 weeks, course content is delivered in 12 weeks for 4 hours each week. Final examinations were scheduled in weeks 13 and 14. Registers and grade sheets for seven sections of the Introduction Management class were investigated. Five sections (99 students) were scheduled in the day and two sections (40 students) in the evening. Students enrolled in the evening sections were predominantly working adults and students enrolled in the day sections were mostly recent high school graduates.

## Test Assumptions

Meeting the assumptions for Pearson's Correlation: The two variables; attendance and performance were continuous. When data points for both variables were plotted against each other on a scatterplot, a linear relationship was established. That is, the variables formed a straight ine pattern along the best fit line. There were two significant outliers in the data set. These were removed before Pearson's Correlation was run. Shapiaro Wilk's test for normality was used and indicated that the variables were normally distributed. Finally, it could also be determined from the scatterplot that there was homoscedasticity as a majority of the plots converged or hovered around the average scores.

Meeting the assumptions for the $t$ tests: As a rule of thumb, when $N>30$, the variables are normally distributed. In this instance $N=139$. Additionally, when a histogram was used to represent the data the scores were close to a bell-shaped curve. The assumption that the scores are independent was also met. Attendance and performance means were analyzed independently based on categorical variables (mode of study and prior achievement) and the samples were not paired. Based on the SPSS results, there were variations in the mean between groups. However, SPSS output provided adjusted figures that were used in this study.

## Research Question 1

Pearson correlation was used to assess the relationship between the attendance and performance. Based on the results, the relationship between attendance and
performance was found to be significant at the 0.01 level (2-tailed). A positive correlation resulted for all three grades when compared to attendance in the investigation (Course Work Grade: $r=.44, p<.001$; Final Exam Grade: $r=.27, p<.002$; Final Grade: $r=.38$, $p<.001)$. Since the P -value is less than the significance level, the null hypothesis that there is no relationship between attendance and performance for day and evening students in a first year business course is rejected as the evidence supports the claim that there is a relationship between attendance and grades. Students with higher attendance tended to earn higher grades see table 1 for a breakdown of these figures.

Table 1

Summary of Correlation Scores on Attendance and Grades

|  |  | Attenda <br> nce $\%$ | Course <br> Work <br> Grade | Final <br> Exam <br> Grade | Final <br> Grade |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | Pearson Correlation | 1 | $.44^{* *}$ | $.27^{* *}$ | $.38^{* *}$ |
| Attendance \% | Sig. (2-tailed) |  | .000 | .002 | .000 |
|  | N | 137 | 137 | 137 | 137 |

Note: Intercorrelations for Day and Evening Students are presented above. ${ }^{* *} p<$ 0.01.

## Research Questions 2 and 3

An Independent t test was performed to answer research question 2 . The results indicated that evening students $(M=85.57 \%, S D=11.69 \%, N=40)$ attended more classes than day students $(M 71.02 \%, S D=25.27 \%, N=99)$. This difference was found to be significant $(t(134.507)=-4.69, p<.001$,$) . The null hypotheses \left(H_{0} 2\right)$ that there is no difference in mean attendance bewteen day and evening students was therefore rejected and the alternate hypotheses $\left(H_{\mathrm{a}} 2\right)$ that there is significant difference in mean attendance of day and evening students accepted.

An independent samples $t$ test was performed to answer research question 3 (RQ3).The results indicated that evening students $(M=75.59, S D=10.89 \%, N=40)$ scored higher than day students in coursework assignments ( $M=68.18, S D=14.66, N=$ 99). This difference was also found to be significant $t(137)=-3.269, p=.001$, two-tailed. Though the results indicated that evening students ( $M=58.53, S D=11.75, N=40$ ) scored higher than day students $(M=54.58, S D=16.03, N=99)$ in the Final Examination, this was not found to be statistically significant, $t(137)=-1.604, p=.112$. Regarding the Final Grade, the results indicated that evening students $(M=65.35, S D=$ 9.87, $N=40$ ) scored higher than day students $(M=60.02, S D=13.09, N=99) ; t(137)=-$ $2.611, p=.010$. The null hypotheses $\left(H_{0} 3\right)$ that there is no difference in mean performance bewteen day and evening students was therefore rejected and the alternate hypotheses $\left(H_{\mathrm{a}} 3\right)$ that there is significant difference in mean performance of day and evening students accepted.

## Research Questions 4 and 5

Independent samples t tests were done comparing mean attendance and performance based on prior achievement. Prior achievement takes into consideration matriculation into the Associate Degree in Business Studies program since this is a first year course. Students are required to pass a minimum of five Caribbean Examination Council subject examinations at the ordinary level, inclusive of Mathematics and English Language to matriculate into the Associate Degree in Business Studies program. Students who did not meet matriculation, must do so by the end of year one to gain promotion to year two. One hundred and nine (109) students fully matriculated into the program where as 30 students had subjects outstanding. The majority of students with partial matriculation had mathematics outstanding. Results indicated that students with matriculation issues attended fewer classes $(M=54.70 \%, S D=25.67 \%, N=30)$ and scored lower in all three areas than students who met full matriculation (See table 2 for breakdown).

Table 2

Summary of t Tests Scores based on Time of Study and Prior Achievement

| Variable | Group | $N$ | Mean | Std. <br> Deviation | $t$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Final Grade | Day Student | 99 | 60.022 | 13.088 | $\begin{array}{r} t(137)=-2.611, \\ p=.010 \end{array}$ |
|  | Evening | 40 | 65.352 | 9.873 |  |
|  | Student |  |  |  |  |
| Attendance \% | Day Student | 99 | 71.024 | 25.27384 | $\begin{array}{r} t(137)=-4.69, \\ p=.000 \end{array}$ |
|  | Evening Student | 40 | 85.75 | 11.68771 |  |
| Grade Course Work | Day Student | 99 | 68.184 | 14.66473 | $\begin{array}{r} t(137)=-3.269, \\ p=.001 \end{array}$ |
|  | Evening | 40 | 75.594 | 10.88823 |  |
| Grade Final Exam | Day Student | 99 | 54.581 | 16.0331 | $\begin{array}{r} t(137)=-1.604, \\ p=.112 \end{array}$ |
|  | Evening | 40 | 58.525 |  |  |
|  | Student | 40 | 58.525 | 11.7473 |  |
| Final Grade | Full | 109 | 63.575 | 11.6252 | $\begin{array}{r} t(137)=3.819, p \\ =.000 \end{array}$ |
|  | Matriculation | 109 | 63.57 | 11.6252 |  |
|  | Partial | 30 | 54.22 | 12.7894 |  |
|  | Matriculation | 30 | 54.22 | 12.7894 |  |
| Grade Course Work | Full | 109 | 72.647 | 12.45209 | $t(137)=3.355, p$ |
|  | Matriculation | 109 | 72.64 | 12.45209 |  |
|  | Partial | 30 | 61.85 | 16.37355 | $t(137)=2.781, p$ |
|  | Matriculation | 30 | 61.85 | 16.37355 |  |
| Grade Final Exam | Full | 109 | 57.528 | 14.7322 |  |
|  | Matriculation | 109 | 57.528 | 14.7322 |  |
|  | Partial | 30 | 49.133 | 14.287 | $=.006$ |
|  | Matriculation | 30 | 49.133 | 14.287 | $t(137)=2.781, p$$=.006$ |
| Attendance$\%$ | Full | 109 | 80.921 | 18.95852 |  |
|  | Matriculation | 109 | 80.921 | 18.95852 |  |
|  | Partial | 30 | 54.698 | 25.67048 |  |

Note: Variation in sample size is due to the variation in the actual students enrolled in Introduction to Management in fall 2015

## Discussion

The findings indicate that the conceptual framework of attendance having a positive influence on grades holds true in this local setting. These findings also support lecturers' claim that day students attended less classes. Notwithstanding, the average attendance of both day and evening students fell below the expected attendance policy of $90 \%$ as is detailed in the 2015 Student Handbook (Evening students, $85.75 \%$ and Day Students $71.02 \%$ ). The Student Handbook also gave some amount of reprieve to students with medical conditions or to students who offered a letter explaining absences under special circumstances. Seeing that class attendance has a positive effect on grades as was indicated in the findings, administrators and faculty would need to find creative means to encourage class attendance for all students considering academic freedom (McFarlane, 2013). According to Knowles the adult learner is self-directing and will reject pressures imposed on him by others. A mandatory policy may therefore raise fundamental issues for adult learners, as such a more flexible policy would be required.

The findings also raised a fundamental question. The size of the correlation coefficients indicate that there is a moderately strong relationship between course work grade and attendance ( $r=.44, p<.001$ ); and final grade and attendance ( $r=.38, p<.001$ ). The relationship between the final examination grade and attendance only had a slight relationship ( $r=.27, p<.002$ ). Additionally, through the independednt sample t test it was determined that even though the results indicated that evening students ( $M=58.53$, $S D=11.75, N=40)$ scored higher than day students $(M=54.58, S D=16.03, N=99)$ in the Final Examination, this was not found to be statistically significant, $t(137)=-1.604, p$
$=.112$. If attendance does not have a strong influence on examination performance, should it be used in determining if a student sits the examination? The current attendance policy requires students to attend $90 \%$ of classes taught in order to sit final examinations. In light of these findings a review of this policy may be necessary.

Coursework grade constitutes $40 \%$ of the overall grade. This area based on the findings is most influenced by attendance. The average coursework grade out of 100 for evening students was 75.60 as opposed to 68.18 for day students. The margin widen when the comparison was made based on matriculation. Students with full matriculation had an average coursework grade of 72.65 as opposed to 61.85 for students with partial matriculation. What was alarming about the group of students that partially matriculated was that their average attendance was $54.7 \%$ while fully matriculated students attended on average $80.92 \%$ of their classes. If these students came into the institution struggling and then not attend classes, this might have serious implications for completing the program and may affect the institution's completion rate. There was noted significance in the differences in attendance and grades for students who fully matriculated and those who did not. Mills et al. (2009) found matriculation to be the most influential factor on first year academic performance. The attendance policy should then make special provisions for this group of students.

Section 3: The Project

## Introduction

Grade reports showed that evening students scored higher on average than day students in a first year business course. Lecturers also claimed that day students were more likely to miss classes. This contradicts the findings of Prentice, Lee and deBurca (2017), whose study found that nonattenders were more likely to be evening students. Given the results from the data analysis in Section 2 of this study, there is evidence to suggest that students that attended more classes performed better. Research related to attendance indicate that it has a positive effect on performance (Andrietti 2014; Englander et al., 2015; Mearman et al., 2014; Stellmack 2013; Teixeira, 2016). According to the 2015 Student Handbook, the attendance policy required students to attend a minimum of $90 \%$ of their classes or face the prospect of missing examinations. This attendance policy as outlined in the 2015 Student Handbook, though mandatory, has not been enforced. It is with this background that the following attendance policy is recommended. This policy recommendation was developed based on the findings in addition to scholarship that speak specifically to attendance and student performance.

## Description and Goals

Prior to this project, the relationship between attendance and performance was not measured at this institution. The findings indicate that there is a positive relationship between attendance and performance. The current mandatory policy has not been enforced and may be a contributing factor to the current attendance rates. On closer examination of the current policy, several issues were identified. The current policy does
not detail who is responsible to implement or execute the policy. The current policy pulls all students into one group and there is no consideration for student diversity. Finally, there is no evaluation plan to indicate the effectiveness of the current policy. A policy recommendation is therefore proposed that will make consideration for the gaps identified above.

The first goal of this project was to increase awareness of the relationship of attendance and performance as it relates to policy among faculty, administrators and students. This will be done through disseminating this study via the available channels within the institution in an attempt to initialize a discussion on attendance and performance. Having these key stakeholders participate in active discussion will be crucial to get stakeholder commitment and support for a new policy. This would also significantly reduce the possibility of implementation delays. The second goal of this project was to propose an attendance policy that encapsulates the findings of the study, as well as the scholarship of others, and to also articulate recommendations specific to the institution's need. By doing this, policy is informed by current happenings in the student population and policies and practices that have worked in other jurisdictions. The third goal of this project was to create an implementation plan for the proposed policy. This would establish the timelines, individuals responsible and the other resources necessary in establishing the policy. The final goal of this project was to prepare an evaluation plan that will provide the means of assessing the effectiveness of the proposed policy.

## Rationale

The project genre of a policy recommendation was chosen based on the background of the study and the findings presented. The relationship between attendance and grades was found to be significant at the 0.01 level (2-tailed). A positive correlation resulted for all three grades when compared to attendance in the investigation (Course Work Grade: $r=.44, p<.001$; Final Exam Grade: $r=.27, p<.002$; Final Grade: $r=.38$, $p<.000)$. Day students did in fact attend less classes than evening students but students with matriculation issues missed the greatest percentage of hours taught and therefore received lower grades. The current policy consisted of blanket statements in the Student Handbook that were not enforced. This highlighted weaknesses in the current policy. Policy creates a framework for clarity and engenders accountability among the individuals who interface with said guiding principle. It is expected that the proposed policy will be multifaceted and specific to the institution's need.

The policy recommendation has as a foundation, a comprehensive review of literature that supports the current findings. These supporting articles will be made available to faculty and other stakeholders during the awareness phase of the policy implementation. The implementation plan will also detail who, when and how. To ensure effectiveness after the policy is implemented an evaluation plan will also be prepared.

## Review of the Literature

## Introduction

Several journals and articles were used in this study. These included but not limited to: Journal of Education for Business, Journal of Higher Education Theory and

Practice, Higher Education Quarterly, Innovations in Education and Teaching International and Research, and Teaching in Developmental Education. Databases used to conduct searches included Education Source, ERIC, Sage Journals, Taylor and Francis Online and Proquest. Key words used in searches for articles included: Attendance, performance, mandatory policy, college attendance and higher education. There is a plethora of articles within the past 3 years that expound on the relationship between attendance and performance. Several of these articles speak to the effect of attendance policy on attendance and by extension performance. To better illustrate trends in this area, many of these articles are used in the review of literature.

## Policy Recommendation

In putting together a policy recommendation, it should be ensured that the proposed policy is not ambiguous. All parties that have a role in executing the policy must be clear on this role and there should be no room for varying interpretations. This would require ensuring that adequate opportunity is given to the various stakeholders to review, question and provide feedback on the proposed policy. Caspersen, Frolich and Muller (2017) wrote an article on their analysis of the implementation of Higher Education Learning Outcomes (HELOs) that were found to be vague. The HELOs' had several different interpretations because of its ambiguousness. This caused variations in the implementation process. The current policy did not specify who was responsible in executing the policy. The recommended policy should be clear and specific.

It is also essential that the policy takes into consideration areas that are trending that were ignored by the previous policy. Chief among these are how technology
influences attendance and the inclusive of diverse students. Watson and Hemmer (2015) placed in perspective the use of supportive technologies that enhance classrooms and the need to redefine attendance in instances where the classroom offering is blended. As more institutions incorporate technology in their offering, policies have to reach beyond the brick and mortar. Scholars like Archambault, Kennedy and Bender (2013) saw the importance in studying this area. Archambault et al.'s (2013) study focused on the impact and significance of enforcing a cyber-truancy policy. All institutions with an online offering should consider this. In addition, it must also be considered if the use of technology to support face-to-face training delivery increases absenteeism. Siciliano (2013) looked at classroom capture technology as revision tool for students who attended classes. A correlation study was conducted to ascertain if students missed classes because of the availability of this tool. Siciliano (2013) found that there was an overall negative relationship between attendance, coursework grade and student usage of this technology.

Prior to conducting the current study on attendance and performance, matriculation had not been considered in the scholarly literature as an influencing factor of attendance. Students with partial matriculation may have not received the necessary support because this issue was not identified. There are also students who are not considered in many instances when policies are developed. This includes students with disabilities. Nicolas (2017) described an issue with mandatory policies as they might not account for the realities of students' life even when exceptions are made, as these exceptions most times only take into consideration the able-bodied.

## Matriculation and Attendance

In the current local setting, students with matriculation issues had Mathematics outstanding and were also enrolled in a foundation Mathematics course. They attended on average $54.69 \%$ of the hours slated for the Introduction to Management course as opposed to day ( $71.02 \%$ ) and evening students ( $85.75 \%$ ). Community colleges are seen as an immediate entrance point to higher education, especially for individuals who did not fully matriculate into a four-year institution (Zientek, Yetkiner, Fong \& Griffin (2013). With the numbers of students accessing higher education increasing, enrolment in developmental courses has also increased (Zientek et al., 2013). According to Zientek et al. (2013), this supports the view that many high school graduates are not fully prepared to meet the expectations of higher education.

Zientek et al. (2013) found Mathematics to be a huge stumbling block for Community College students. In a study of 224 students in developmental mathematics courses, the researchers found attendance to be the highest predictor of performance (Zientek et al., 2013). They recommended that attendance policy be based on enrolment status and credit hours instead of just course grade. That way attendance policy may become the main motivating factor to attending classes. This is because students would see their colleagues suffer the consequences of too many absences. Moore (2005) found that attendance policies that emphasized the importance of attendance, saw more students attending more classes and scoring higher.

Unlike Moore (2005), Nyatanga and Mukorera (2017) proposed a more stringent attendance policy. Nyatanga and Mukorera (2017) in a probability study found that the

Scholastic Aptitude Test (SAT) scores (the basis for matriculation in most American colleges) had a strong influence on student performance. In addition, this study revealed that first year students needed to attend $60 \%$ of classes in order to pass an Economics course.

## For Mandatory Attendance Policy

Rijavec and Miljkovic (2015) investigated the reasons for college students missing classes. Rijavec and Miljkovic (2015) found "not being in the mood, personal issues, health issues, lecture issues and no negative consequences" (Rijavec and Miljkovic, 2015, p.480) as reasons for missing classes. If students are willing to miss classes because there are no consequences this could indicate the need for enforcing a mandatory policy. In the current study reasons for missing classes were not ascertained. However, the CCCJ Handbook does account for explained absences, which could include health or personal reasons. Latta and Lowenstein (2017) recommended that business students not miss any classes to prevent lost tuition and recommended a mandatory attendance policy for this reason. Notwithstanding, Verbeeren and Hoof (2007) questioned punishing students for a service they paid for but did not utilize.

Saelzer and Lenski’s (2016) study evidenced the need for enforcing mandatory policies and indicated that students were less likely to be truant when they perceived their school's attendance policy to be active and not passive. Saelzer and Lenski’s (2016) study utilized quantitative approaches to analyze questionnaires completed by 4763 secondary students. At the time of the questionnaire the average age of students was 15 . The students perceived a policy to be passive when even though the attendance policy is
explicitly stated it was not enforced and the greatest consequent faced would be to submit a letter of excuse (medical or otherwise). Students however perceived an institution's policy to be active when they expect actions to be taken against them for breaking the rules. In the case of the current local setting, though the policy was stated in the CCCJ Student Handbook, it was not enforced. It could then be seen as passive. Though Saelzer and Lenski's (2016) study focused on secondary age students, the average age of students completing the survey was in close range to that of first year day students at the local institution.

Higbee and Fayon (2006) concluded that class attendance is beneficial to students however, expressed differing viewpoints on the need to implement mandatory attendance policy. Higbee was for a mandatory attendance policy. Higbee taught a first year experience course and was of the view that students not only take responsibility for their own learning, but for that of their classmates. This responsibility for their classmates learning is done through taking turns in facilitating class discussions and working in teams. Higbee's classes were experiential in nature with little provisions for notes as such it would be necessary for students to attend. As a practitioner, Higbee believed that in attending classes students got the opportunity to prepare a presentation, stand before their colleagues to deliver it orally and be critiqued. In this process students learn to respect others and to collaborate. Higbee believes that if students miss classes and photocopy the notes and then pass the test, they could miss the very essence of what they were to learn.

Crede, Roch and Kieszczynka (2010) posited that mandatory attendance policies have a small positive effect on average grades. Crede et al. (2010) conducted a meta-
analysis of the relationship between class attendance and grades that indicated that attendance has strong relationships with grades. Attendance was found to be a better predictor of grades than other predictors. Crede et al. (2010), acknowledged the argument that adult students should be allowed to choose when they want to attend class but put forward the counterargument that institutions that are run by the state cannot have students not attending an indefinite number of classes.

Based on the studies reviewed throughout this paper it is clear that being present at class has several benefits as opposed to not being present. It is also noted that students will not attend classes if they believe there are no consequences. Students have a responsibility not for their learning only, but for that of the other students in the classroom and negate on this responsibility when they are absent. Further, there are other benefits to attending classes that go beyond grades. While working with their fellows, students learn to collaborate and respect each other. Hamamcı and Hamamcı's (2017) study supported the statement that students learn to collaborate and respect each other while working together; after conducting a pretest posttest experimental design with 202 students in a setting where attendance was mandatory. Hamamcı and Hamamcı (2017) also found a meaningful experience between attendance and performance.

## Against a Mandatory Attendance Policy

Green and Celkan's (2015) study posited that students generally felt that they were responsible for their own learning and that policy should reflect this stance. Participants in this study consisted of 64 students in the United States and 44 in Turkey. Even in different cultures students held to the assumption that they were responsible for
their own learning. Fayon took the position that students need to: grasp their role in determining their future; take responsibility for their education; and recognize the consequences of their choices (Higbee \& Fayon, 2006).According to Boucouvalas and Lawrence (2010), Malcom Knowles spoke to the adult leaner's ability to understand him or herself and be internally directed even in situations that were other-directed, knowing when and how to learn and to take responsibility for his or her own learning. With this understanding of an adult learner, how effective would a compulsory or mandatory policy be? If even in other-directed environments, adult learners are self-directed?

Lukorera and Nyatanga (2017) found that students may choose not to be engaged in learning even with stipulated attendance policies. Lukorera and Nyatanga's (2017) found support for Knowles' assumption of self-directedness. Lin (2014) noted as a policy implication, that though a mandatory policy reviewed in a study by Marburger (2006) indicated that attendance was significantly improved even among those students who were reluctant to attend classes, this did not reflect in their performance. Students that went just because of the enforced policy, though they had perfect attendance, were not as engaged (Lin, 2014). Lin (2014) recommended a strategy of incentivizing attendance instead of promoting a mandatory policy. Broker, Milkman and Raj (2014) found that students may be more motivated to attend classes when they could earn bonus points or other tangible rewards towards their final grades. Motivating students to attend classes through offering rewards was supported by Carroll and Peter's (2017) experiments. Carroll and Peter (2017) found that students had increased attendance to classes when points were awarded for classroom activities.

Mohanan, Harichandran and Vijayan (2017) in a quantitative study also found a positive correlation between attendance and performance, however they also mentioned that medical education continues to grapple with absenteeism despite having a mandatory policy. Talat, Abida and Fahad (2015) conducted a survey study with medical students in 2011 and 2012. The results indicated that there was a positive correlation between the supposed importance of attendance and levels of academic motivation (Talat et al., 2015).

Talat et al. (2015) also found that $11.8 \%$ of the students were against a mandatory attendance policy because it reduced their motivation to attend classes.

AlHamdan, Tulbah, AlDuhayan and AlBedaiwi (2016) conducted a study that compared preferences of 345 students in two universities in Saudi Arabia, one private the other public. Although both institutions have a mandatory policy that states that students must attend $25 \%$ of lectures or miss the final examination a majority of the students were not for a mandatory attendance policy (AlHamdan et al., 2016). Students in the private institution had more interest in the mandatory policy and thought that class attendance was important. Students attending the public institution that did not pay tuition had less preference for a mandatory policy (AlHamdan et al., 2016). Student perceptions on attendance and attendance policies could have serious implications for state funded programs.

Snyder et al. (2014), posited that even though studies showed that there is a relationship between attendance and student performance research exploring this phenomenon when the attendance policy is compulsory have not been conclusive. The researchers conducted a quasi-experimental study that reviewed students attendance and
performance based on being assigned a compulsory attendance policy that attributed a reward or penalty or a simple statement of policy which had no repercussions (Snyder et al., 2014). High achievers were more responsive to the mandatory policy and the relationship between attendance policy and class performance was based on students' prior academic achievement (Snyder et al., 2014). Findings in the current local setting were similar where matriculation data was used to represent prior achievement; students who had matriculation issues attended fewer classes $(M=54.69 \%, S D=25.67 \%, N=30)$ and performed poorer. Self's (2012) study posited similar findings. Self's (2012) study found that students who got better grades prior to the class investigated were less likely to miss class and found that the policy that punished students for being absent was found most effective. Based on literature on prior achievement and findings in the local setting, consideration must be given to the implications for weaker students if a compulsory or mandatory attendance policy is imposed as this may decrease retention and completion rates for students least likely to attend. The local sample consisted of 139 students. Thirty (30) of the 139 students had partial matriculation (21.58\%). The mean attendance for this group was $54.70 \%$ of hours taught. If students with partial matriculation will not be as receptive of a mandatory policy as their higher achieving counterparts, this may cause increases in the dropout rate. Cotton, Nash and Kneale (2017) suggested that policies and practices in different higher education institutions might affect retention rates. Similarly, Carr's (2014) qualitative study delineated the impact of attendance policy on adult learners and concluded that attendance policies can affect students' decision to persist in their studies. In determining attendance policies administrators should then consider how
these policies could affect retention and completion rates. Macfarlane (2013) concluded that the strategy of imposing a compulsory attendance policy may serve as counterproductive to creating an atmosphere of having students become independent and critical learners. Macfarlane (2013) recommended that institutions consider all implications when instituting attendance policies. In a later study, Snyder and Frank (2016) found absences to be a good predictor of student grades and encouraged instructors and institutions to boost class attendance, which would in turn increase student performance, retention and graduation rates. Snyder and Frank's (2016) scholarship recommended further studies in effective methods that motivate students to attend classes, how they work relative to a compulsory policy and or in combination with class attendance policies. Some institutions have moved to incentivize mandatory policies. Maskey (2012) promoted a mandatory attendance policy with incentives.

Teixeira (2016) recommended that teachers in the first lecture inform students of the relationship between attendance and performance suggesting having a flexible attendance policy, which is more in keeping with adult education. Thereby giving students adequate information to assist in their own decision-making. Mati, Gatumu and Chandi (2016) found that even in the high school setting, when students were thoroughly informed, it provided some amount of motivation, a sense of ownership causing them to be more inclined to follow the rules.

## In Addition to Attendance

In determining attendance policy other variables should be considered. Ladwig and Luke (2014) found that even though a positive relationship was established between
attendance and performance in their study, it was also recognized that reforms and policies around attendance have not and are unlikely to generate patterns of improved performance. Bai and Chang (2016) focused on class size and attendance policy in Taiwan. The findings indicated that class size was more influential on attendance than attendance policy (Bai \& Chang, 2016). Bai and Chang's (2016) study confirmed interaction between class size and attendance policy to be based on teacher trait.

Local research findings indicated that attendance had a positive relationship with grades. There was a similar finding in Bennett and Yalams' (2013) study in another Jamaican tertiary institution. Bennett and Yalam (2013) conducted a correlation study among 24 engineering students and found that there was a positive relationship between attendance and performance (correlation coefficient of 0.656 ). In addition, students who participated more in Bennett and Yalam's (2013) study also scored higher than students that did not. Recommendations from Bennett and Yalam's (2013) comprised lecturers including active learning strategies and deeper approaches to teaching and learning to improve student participation as well as incorporating scheduled quizzes at the beginning of class to promote student attendance. Bennett and Yalam (2013) also recommended that a listing of all assignment due dates be made available to students so that they can better prepare and complete their work without missing classes.

Lukkarinen, Koivukangas and Seppälä (2016) conducted a cluster and regression analysis on three groups of students. The groups used in the clusters consisted of students who dropped out before the final exam, students who attended classes as well as the exam, and those students who studied independently and attended the exam (Lukkarinen
et al., 2016). The results indicated that the group of students who attended both classes and examination performed best. Students in this study benefited from a non-mandatory attendance policy (Lukkarinen et al., 2016). Additionally Lukkarinen et al. (2016) suggested not grouping all students in one homogenous group but rather having several subgroups. The reason for this was that several of the students that did not attend classes but sat the examinations were successful (Lukkarinen et al., 2016). Lukkarinen et al. (2016) recommended a direction of independent studies for students who are not able or who do not want to attend classes.

The scope of attendance policy is an expansive one. There are many things to consider. Findings that hypothesize a positive relationship with attendance and performance have caused tertiary institutions to move towards implementing mandatory attendance policies in order to boost student performance. In the case of the local setting under review, and easy fix would be to enforce the current policy, which is mandatory in nature. However, given the scholarship, findings and disparities between the students in the study, a more detailed and specific policy is required. This should speak to those students that attend in the evening, during the day and those students that did not fully matriculate into the program. Given the findings, theoretical framework and the literature available, a mandatory policy for attendance will not be pursued for the policy recommendation.

## Project Description

Based on the results of the study, the scholarship available, and the implications for the current attendance policy, this project will take the form of a policy
recommendation. Based on the findings in Section 2 and the literature, a quick fix could have been to enforce the current policy. However, available literature has also revealed other ways of achieving increased attendance. It is therefore recommended that students not be barred from final examinations based on the percentage of hours attended. This recommendation is based on the following reasons: Firstly, while the correlation study indicated that there was a positive relationship between attendance and final examination grade, there was only a slight relationship. Further, on average students did not meet the $90 \%$ of hours taught as is stipulated by the current policy but still passed the course. If these students were all blocked from sitting final examinations, it could have negative implications for the graduation rate.

Seeing that attendance has a positive effect on grades as was indicated in the findings, administrators and faculty would need to find creative means to encourage class attendance for all students considering academic freedom (McFarlane, 2013). According to Knowles the adult learner is self-directing and will reject pressures imposed on him by others. A mandatory policy may therefore raise fundamental issues for adult learners, as such, a more flexible policy would be required. Based on the findings in the local study and scholarship, a policy that informs and rewards attendance is recommended.

Lin (2014) recommended an incentive-stimulating attendance policy instead of a mandatory policy. In this policy, the lecturer would seek to increase the opportunity cost of missing classes and lower the opportunity cost of achieving a higher grade. Increasing the opportunity cost of missing classes and lowering the opportunity cost of getting a higher grade simply means that an environment is created where it is more costly for
students to miss class than to get a higher grade. Given the local setting, lecturers could use $50 \%$ of the questions from in class exercises and reviews on the midterm examination. Using questions from in class exercises and reviews in midterm examination would increase the opportunity cost of missing a class and would make it easier for the student to earn a higher grade. A similar strategy can also be done for the final examinations for internal programs.

Given that several of the major programs offered by the institution have an external body that sets final examinations, using questions from in class exercises and reviews may only be applicable to midterm examinations. Even so, seeing that midterm grades are accounted for within the coursework grade, which was found to be the grade affected most by absenteeism, using review questions would be a plus to both faculty and students. Lin (2014) also recommended lecturers granting an attendance bonus that is added to midterm and final examination grades. Braun and Sellers (2012), recommended giving a daily quiz that motivated students to read chapters a head of time. A daily quiz would be used as a review and would take about five minutes each class. The daily quiz strategy could work in tandem with Lin's (2014) proposal to incentivize classes. Teixeira's (2016) recommendation of teachers informing students of the relationship between attendance and performance in the first class would be one strategy used to promote attendance. Based on the above findings and scholarship, an attendance policy that informs and rewards attendance is recommended.

## Inform

Students should be adequately notified of the relationship between attendance and performance. Students with partial matriculation will be especially targeted. Notification could be achieved through lecturers communicating these implications at the beginning of each semester as well as to include this information on each course outline. In addition, academic advisors should discuss the relationship between attendance and performance with students that have partial matriculation in their first meeting. Arming students with this information is critical in promoting self-directed learners. As was indicated by Mati, Gatumu and Chandi (2016), students are more inclined to follow an institution's rules and policies when they have been adequately informed. Where the classroom is blended, students should be adequately informed of what constitutes attendance in the online setting, and how it is accounted for in the student handbook as well as on their course outline. The current attendance policy does not to speak to the online classroom. The policy should inform the student, and lecturers should also alert academic advisors when students have missed two consecutive classes for follow-up to take place.

## Reward

Given that there is a current policy that has not been enforced, continuing this policy or creating a new policy that requires similar enforcement might meet the same fate. The current local study did not ascertain lecturers' position on enforcing the current policy. However, lecturers maybe more open to rewarding attendance as opposed to punishing absence (Braun \& Sellers 2012; Lin 2014). As such, rewarding students to attend classes through increasing the opportunity cost of missing classes is recommended.

Increasing the opportunity cost of missing classes can be done by using questions from reviews and in class exercises on the midterm examination. Points should also be awarded for other in class activities like discussions. Awarding students for classroom activities will have real implications for student's course work grade that was most affected by absenteeism. An attendance bonus can also be considered to encourage students to attend classes and increase the opportunity cost of missing classes. If an attendance bonus is considered, the terms for such bonus should be explicitly stated so that both student and lecturers are clear on requirements for award of this bonus. By rewarding students to attend and participate in classes attendance is being promoted as a step in helping students perform better (Lyubartseva and Mallik, 2012).

A potential barrier to the proposed policy maybe lack of participation of lecturers in informing students of the relationship between attendance and performance and the reporting absences. However, if prior to implementation of policy they are adequately informed and they are given the opportunity to contribute to the discussion, their support should be confirmed. Implementation of the proposed policy is proposed for the 20192020 academic year. Implementing the policy in the 2019-2020 academic year would give adequate time for familiarization and acceptance from the various stakeholders. In addition, it would allow for policy update in the student handbook. It is also recommended that a series of town hall type meetings be held with faculty and the student body to further disseminate information concerning the recommended policy.

## Project Evaluation Plan

The overall goal of this project is to propose policy initiatives that will encourage class attendance while taking into consideration current findings and research. The policy recommendation will be evaluated based on outcome and in a formative way. Outcome based evaluation is used to determine the effectiveness of the initiatives as described in Appendix A. The outcome will be evaluated though comparing future average attendance and performance scores of day and evening students with previous ones. The evaluation will be completed through the institution's Office of Research and would be outcome based. Keen attention will be given to students with matriculation to identify how effective this initiative is in improving student attendance and grades. The formative evaluation will be used to ensure continuous improvement. A survey of students, and faculty would be used to gain their perception on the effectiveness of the strategies used to encourage attendance yearly. The survey used should also afford participants the opportunity of proposing other means of encouraging attendance. The survey of students, and faculty will be developed and executed by the Office of Research. Through use of this evaluation measure, administrators and faculty will be able to determine the effectiveness of proposed policy and make adjustments where required. Evaluation after implementing the proposed policy will facilitate efficient use of the institution's resources. The results from the evaluations can be discussed at the end of summer meeting of faculty and administrators prior to the beginning of each academic year.

## Project Implications

## Local Community

Through acknowledging the self-directedness of adult learners, the findings in this study and the scholarship of others, the proposed policy could have the following possible social change implications: The focus of the policy may cause students to attend more classes which has been proven to positively correlate with grades. Improved attendance could have positive effects for the culture of the institution in terms of retention and completion. Higher grades could lead to higher retention and graduation rates. Jones (2015) posited that institutions should focus more on student completion rather than a culture of enrollment. Retention can be further improved through special monitoring and mentoring students (Cotton et al., 2017). Administrators and faculty could through executing this policy ensure that students have the requisite information concerning attendance to make decisions that are in their best interest, thereby reinforcing self-directedness (Dee, 2015). In addition, because there are incentives for attending classes through the reward component of the policy, there can be significant improvement in coursework grades, which will have an impact on the overall grade students, receive.

## Far-Reaching

The problem as stated in section one can be identified in other local institutions. If the recommended policy is adopted and is successful after implementation, the recommended policy could aid other institutions in revisiting their policies. In addition, by continuing data collection through the evaluation plan, additional scholarship could be
added to the plethora of available studies. Finally, the promotion of a policy that informs would help students in being critical thinkers that contribute positively to their communities.

## Section 4: Reflections and Conclusions

## Project Strengths and Limitations

A strength of this project is that it is based on actual research findings at the institution and proposes a policy solution to the stated problem. Another strength is that the recommended policy incorporates areas that were previously ignored in the current attendance policy. An additional strength is that the project is so tailored to utilize resources that are already available at the institution. The project, if implemented, can serve to improve attendance, which has been proven to have a positive relationship with performance. A limitation of the project is that it is highly dependent of the participation of lecturers. The policy may be viewed as additional work by faculty. At which point, stakeholders may resort to the previous position of a policy in word only because in such a case the policy could be ignored.

## Recommendations for Alternative Approaches

The problem as defined could also be addressed through enforcing the current attendance policy. The average percentage attendance for day and evening students were below the required $90 \%$. If students were barred from examination for not meeting the required hours, attendance could increase. However, as was indicated in Lin's (2014) study, increased attendance does not always mean improved performance as students may attend and not be engaged in the class. Guided by the principle that adults are selfdirected even in other-directed environments, forcing students to attend classes might not yield the aspired results.

Another way that this problem could have been approached was to ascertain if students might not be attending classes because lectures are not engaging. The reason for students missing classes has not been determined. In this instance an approach that could be taken is from the standpoint of pedagogy or andragogy. Coakley and Sousa (2013) conducted a study on freshmen students in an Introduction to Business course after they realized that students were not engaged in the class. The used experiential and cooperative learning approaches and found success in engaging students. Bennett and Yalam's (2013) recommended active learning strategies and deeper approaches to teaching and learning to improve student participation and by extension attendance.

In summarizing, two alternative approaches could be used. One to enforce the current attendance policy and the other to engage students enough that they will attend classes. Prior to implementing any of these approaches, sufficient diligence must be used in determining if either is the right fit and what reasons cause students not to attend classes.

## Scholarship, Project Development and Evaluation, and Leadership and Change

Though there were many studies detailing the relationship between attendance and grades, the process of synthesizing the literature was a surmountable task. There were many articles that spoke to the relationship between attendance and performance but not as many that spoke to attendance policy as it relates to actual attendance and performance. Initially, I found searching for articles very difficult and this created some amount of frustration. Nevertheless, studies conducted by other researchers proved instrumental in the development of the proposed policy. The process of planning a project
is very intricate. From reflecting on the current policy, reviewing related literature, conducting a study and using the findings to influence the project, there are many things to consider. This caused me to seek feedback from my research chair and committee members.

After identifying a problem, it was reassuring to identify that other practitioners have experienced a similar problem and have put forward possible solutions. Identifying the problem also gave me a valuable lesson regarding the need for continuous research. The reason for this was because, even though this particular problem was defined through attendance and performance, it could have been defined through work experience or the lack thereof, as was discussed briefly in the problem statement. After defining the problem, the approach taken in using a correlation design and archival data could have also been different. This left a lingering realization that scholarship is dynamic and there will always be a need for further studies as I also discovered in the various studies I reviewed. At present, I have identified five studies that will stem from this one. In addition to this, I received commitment from my local institution's research unit in conducting them. This could mean additional publications and growth in my career as a scholar and practitioner.

Attendance policy is an age-old debate that was not a consideration in my current institution prior to this project. It is expected that this study and proposed policy will initiate a conversation that seeks to ensure the success of all students. However, there is still much to research. It is my hope that my own scholarship can help other scholar practitioners. I believe that how I operate professionally has changed forever after the
experience with this project. After conducting this study, an awareness is created that causes critical thinking and analysis in approaching problems.

## Reflection on Importance of the Work

From the onset of establishing the local problem, this study has taken twists that were unexpected. Initially, I hypothesized that that evening students received a higher grade than day students because of their work experience. However, while work experience may have been the reason evening students received higher grades, scholarship supporting this claim was found inconclusive. Given the complaints of student absenteeism by lecturers, attendance became the main focus of the study. This in itself highlights the importance of scholarship, as many times practitioners speculate instead of investigating or exploring possible reasons for problems they may encounter. Based on the literature available and the local problem, a correlation design was used to determine if there was a relationship between attendance and performance.

The findings from this study indicated that there is a positive relationship between the two variables. It also posited that day students missed more classes when compared to evening students and that students with matriculation issues were most at risk of missing classes. The evidence informed the proposed policy which could have serious implications for average attendance and grades of students. An easy fix would be to just impose a mandatory attendance policy. However, available scholarship indicated that results of a compulsory or mandatory policy's effect on attendance and academic performance have been unconvincing (Bai and Chang, 2016; Lin 2014 \& Snyder et al., 2014). In addition, through the scholarship of others, it was identified that a mandatory
attendance policy may cause students to attend classes, but this may not result in students achieving a higher grade (Lin, 2014). This is because adult students may not be engaged or participate as readily when forced to attend.

An important lesson has been taken from this study; research must be approached comprehensively. If I had used just the findings of the correlation to arrive at a conclusion of enforcing the current mandatory policy, the findings and recommendations from other scholar/practitioners would be ignored and the automatic action would be to enforce the current policy. If students are forced to attend, performance does not always improve, and students who are not high achievers benefit the least from mandatory attendance policies. These findings suggest that there are other contributing factors not covered in this study.

## Implications, Applications, and Directions for Future Research

The findings indicate that there is a positive relationship between attendance and grades. The first implication of this would be the fact that findings can be used to inform policy and future practices. Through policy and strategies targeted at encouraging attendance, it is expected that students will attend more classes and attain higher grades propelling a multiplier effect of increased retention and graduation rates, which may in turn boost the income earning potential of these students (Cotton, Nash and Kneale, 2017).

The institution would also promote the self-directedness of students by arming them with the necessary information to make decisions and would thereby be reinforcing students' abilities to be critical thinkers who will contribute positively to society. In
addition, findings from this study have implications for the conceptual framework of attendance having a positive relationship with grades and will add to the field of scholarship that posit this.

Future studies might include a wider cross-section of students, other disciplines and modes of course delivery (Ladwig and Luke, 2014). In addition, differences in lecturers and their impact on attendance and performance should be considered for future studies (Snyder et al., 2014). It is also recommended that higher upper-level business courses be considered for future studies. For this study only first year business students were considered. Mukorera and Nyatanga (2017), found substantial difference between how first year and second year students reacted to the stipulated attendance policy and gave explanations as to why students do not attend or engage in classes.

Though this study identified that a possible reason for students scoring lower was missing classes, it did not identify possible reasons students missed classes. Determining the reason why students miss classes may be a direction for future research.

## Conclusion

Day students at the local setting scored a grade lower than their peers enrolled in the evening sections of a first year business course. This study collected and analyzed data that revealed that day students on average attended fewer classes than evening students and that there was a significantly positive relationship between attendance and performance. In an attempt to improve students' performance and considering Knowles’ assumption of adult learners being self-directed, a policy recommendation was made to inform and incentivize attendance. It is expected that the recommended policy will
encourage attendance without infantilizing adult learners. The local study also revealed that both day and evening students had average attendance percentages that were lower than the required $90 \%$ as per the CCCJ 2015 Student Handbook. Further, students with matriculation issues were most likely to miss classes. Future studies on attendance and performance include a wider cross-section of students in other disciplines, upper-level business courses and reasons for students missing classes.

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Appendix A: Policy Recommendation Paper
The Informed and Incentivized Attendance Policy
By

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## Background

Grade reports for students enrolled in Introduction to Management during the fall 2015 semester revealed that evening students on average scored a grade higher than students enrolled in the day sections. Students enrolled in the evening sections are working adults that have selected classes in this manner to accommodate their employment. Day students are traditional students based on their age (16-21) and unemployed status. There were complaints from lecturers that day students were more likely to be absent from their classes. This contradicts the findings of Prentice, Lee and deBurca (2017), whose study found that non-attenders were more likely to be evening students. Research related to attendance indicates that it has a positive effect on performance (Andrietti 2014; Englander, Wang, \& Betz, 2015; Mearman, Pacheco, Webber, Ivlevs, \& Rahman, 2014; Stellmack 2013; Teixeira, 2016).

Studies that posit the positive effect of attendance on performance have advanced debates on a larger problem of attendance policy and academic freedom. Pinto and Lohrey (2016) focused on a similar discussion as the two business education professors outlined their viewpoints on attendance policy. Even though attendance has been proven to have a positive effect on grade or performance, administrators and educators have to be mindful of the growing population of adult learners who are viewed as self-directed. Macfarlane (2013), viewed compulsory attendance policies as infantilizing adults rather than helping them to be more self-directed. Macfarlane's (2013) view could be supported by Malcolm Knowles' assumption of the adult learners being self-directing.

Knowles saw the adult student as moving from a state of dependency to a selfconcept that is self-directing (Knowles, 1968). According to Boucouvalas and Lawrence (2010), Malcom Knowles spoke to the adult leaner's ability to understand him or herself and be internally directed even in situations that were other-directed, knowing when and how to learn and to take responsibility for his or her own learning. According to the 2015 Student Handbook, the attendance policy requires students to attend a minimum of $90 \%$ of their classes or face the prospect of missing examinations. This attendance policy as outlined in the 2015 Student Handbook has not been enforced.

## Summary of Findings and Analysis

Given the background, an explanatory correlation research design was used to examine the association between grades reported for students and percentage attendance. Pearson's correlation was used to analyze the relationship between the variables. Based on the results, the relationship between attendance and grades was found to be significant at the 0.01 level (2-tailed). A positive correlation resulted for all three grades when compared to attendance in the investigation (Course Work Grade: $r=.44, p<.001$; Final Exam Grade: $r=.27, p<.002$; Final Grade: $r=.38, p<.001$ ). Students with higher attendance tended to earn higher grades. The size of the correlation coefficients indicate that there is a moderately strong relationship between course work grade and attendance ( $r=.44, p<.000$ ); and final grade and attendance ( $r=.38, p<.000$ ). However, there was only a slight relationship between the final examination grade and attendance $(r=.27<$, $p<.002$ ). If attendance does not have a strong influence on examination performance, should it be used in determining if a student sits the examination? The current attendance
policy requires students to attend $90 \%$ of classes taught in order to sit final examinations. In light of these findings a review of this policy may be necessary.

Independent samples $t$ tests were also used to compare attendance and grades based on prior achievement. Prior achievement takes into consideration matriculation for entry into the Associate Degree in Business Studies program since Introduction to Management is completed is a first year course completed in the first semester. Students are required to pass a minimum of five Caribbean Examination Council subject examinations at the ordinary level, inclusive of Mathematics and English Language to matriculate into the Associate Degree in Business Studies program. Students, who did not meet matriculation, must do so by the end of year one to gain promotion to year two. One hundred and nine (109) students fully matriculated into the program where as 30 students had subjects outstanding. The majority of students with partial matriculation had mathematics outstanding. Results indicated that students with matriculation issues attended less classes $(M=54.70 \%, S D=25.67 \%, N=30)$ and scored lower in all three areas than students who met full matriculation (See table 2 for breakdown). The average attendance of both day and evening students fell below the expected attendance policy of $90 \%$ as is detailed in the 2015 Student Handbook (Evening students, $86 \%$ and Day Students 71\%). The 2015 Student Handbook also gave some amount of reprieve to students with medical conditions or to students who offered a letter explaining absences under special circumstances.

The findings indicate that the conceptual framework of attendance having a positive influence on grades holds true in this local setting. These findings also support
lecturers' claim that day students attended less classes. Seeing that class attendance has a positive effect on grades as was indicated in the findings, administrators and faculty would need to find creative means to encourage class attendance for all students considering academic freedom (McFarlane, 2013). According to Knowles the adult learner is self-directing and will reject pressures imposed on him by others. A mandatory policy may therefore raise fundamental issues for adult learners, as such a more flexible policy would be required.

Coursework grade constitutes $40 \%$ of the overall grade. This grade is influenced the most by attendance. The average coursework grade out of 100 for evening students was 75.60 as opposed to 68.18 for day students. The margin widen when the comparison was made based on matriculation. Students with full matriculation had an average coursework grade of 72.65 as opposed to 61.85 for students with partial matriculation. What was alarming about the group of students that partially matriculated was that their average attendance was $54.69 \%$ while fully matriculated students attended on average $80.92 \%$ of their classes. If these students came into the institution struggling and then not attend classes, this might have serious implications for completing the program and may affect the institution's completion rate. There was noted significance in the differences in attendance and grades for students who fully matriculated and those who did not. Mills et al. (2009) found matriculation to be the most influential factor on first year academic performance. The attendance policy should then make special provisions for this group of students.

## Major Evidence from Literature and Research

Since it has been proven that there is a positive relationship between attendance and grades in the local setting, enforcing the current policy might be an option to increase class attendance and by extension grades since there is a positive relationship between the two variables. However, several studies reviewed cautioned against such an approach as it infringes on students' academic freedom, self-directedness and may serve as a counterproductive measure if adult learners choose not to honor such a policy. Green and Celkan's (2015) study posited that students generally felt that they were responsible for their own learning and that policy should reflect this stance. Participants in this study consisted of 64 students in the United States and 44 in Turkey. Though students were in different cultures they held true to the assumption that they were responsible for their own learning. According to Boucouvalas and Lawrence (2010), Malcom Knowles spoke to the adult leaner's ability to understand him or herself and be internally directed even in situations that were other-directed, knowing when and how to learn and to take responsibility for his or her own learning. With this understanding of an adult learner, how effective would a compulsory or mandatory policy be? If even in other-directed environments, adult learners are self-directed?

Lukorera and Nyatanga (2017) found that students may choose not to be engaged in learning even with stipulated attendance policies. This finding could be seen as support for Knowles' assumption of self-directedness. Lin (2014) noted as a policy implication, that though a mandatory policy reviewed in a study by Marburger (2006) indicated that attendance was significantly improved even among those students who were reluctant to
attend classes, this did not reflect in their performance. Students that went just because of the enforced policy, though they had perfect attendance, were not as engaged. Lin (2014) recommended a strategy of incentivizing attendance instead of promoting a mandatory policy. Broker, Milkman and Raj (2014) found that students may be more motivated to attend classes when they could earn bonus points or other tangible rewards towards their final grades. Carroll and Peter's (2017) experiments support the finding that students are more motivated to attend classes when they receive rewards. Carroll and Peter's (2017) found that students had increased attendance to classes when points were awarded for classroom activities.

Mohanan, Harichandran and Vijayan (2017) in a quantitative study also found a positive correlation between attendance and performance, however they also mentioned that despite having a mandatory attendance policy, medical education continues to grapple with absenteeism. Talat, Abida and Fahad (2015) conducted a survey study with medical students in 2011 and 2012. The results indicated that there was a positive correlation between the perceived importance of attendance and levels of academic motivation. Talat, Abida and Fahad (2015) also found that $11.8 \%$ of the students were against a mandatory attendance policy because it reduced their motivation to attend classes. Hamdan, Tulbah, AlDuhayan and AlBedaiwi (2016) conducted a study that compared preferences of 345 students in two universities in Saudi Arabia, one private the other public. Although both institutions have a mandatory policy that states that students must attend $25 \%$ of lectures or miss the final examination a majority of the students were not for a mandatory attendance policy (Hamdan et al., 2016).. Students in the private
institution had more interest in the mandatory policy and thought that class attendance was important. Students attending the public institution that did not pay tuition had less preference for a mandatory policy (Hamdan et al., 2016). This could have serious implications for state funded programs.

Snyder et al. (2014), posited that even though studies showed that there is a relationship between attendance and student performance research exploring this phenomenon when the attendance policy is compulsory or mandatory have not been conclusive. Snyder et al. (2014) conducted a quasi-experimental study that reviewed students attendance and performance based on being assigned a compulsory attendance policy that attributed a reward or penalty or a simple statement of policy which had no repercussions. The study found that high achievers were more responsive to the mandatory policy and that the relationship between attendance policy and class performance was based on students' prior academic achievement. The influence of prior achievement on performance was evident in the current study where matriculation data was used to represent prior achievement; students who had matriculation issues attended fewer classes $(M=54.70 \%, S D=25.67 \%, N=30)$ and performed poorer. Self's (2012) study also confirmed this finding. Self's (2012) study found that students who got better grades prior to the class investigated were less likely to miss classes.

With these findings, consideration must be given to the implications for weaker students if a compulsory or mandatory attendance policy is imposed as this may decrease retention and completion rates for students least likely to attend. In the current study, 30 of the 139 students had partial matriculation (21.58\%). The mean attendance for this
group was $54.70 \%$ of hours taught. If these students will not be as receptive of a mandatory policy as their higher achieving counterparts, this may cause increases in the drop-out rate if the policy is enforced. Cotton, Nash and Kneale (2017) suggested that policies and practices in different higher education institutions may affect retention rates. Similarly, Carr's (2014) qualitative study delineated the impact of attendance policy on adult learners and concluded that attendance policies can affect students' decision to persist in their studies. Attendance policy must then be considered seriously.

Macfarlane (2013) concluded that the strategy of imposing a compulsory attendance policy may serve as counterproductive to creating an atmosphere of having students become independent and critical learners. Macfarlane (2013) instead recommended that institutions consider all implications when instituting attendance policies. In a later study, Snyder and Frank (2016) found that absences were a good predictor of student grades and encouraged instructors and institutions to boost class attendance which would in turn increase student performance, retention and graduation rates. Snyder and Frank (2016) recommended further studies in effective methods that motivate students to attend classes, how they work relative to a compulsory policy and or in combination with other class attendance policies. Some institutions have moved to incentivize mandatory policies. The study conducted by Maskey (2012) promoted a mandatory attendance policy with incentives.

Teixeira (2016) recommended that teachers in the first lecture inform students of the relationship between attendance and performance suggesting having a flexible attendance policy, which is more in keeping with adult education. Thereby giving
students adequate information to assist in their own decision-making. Mati, Gatumu and Chandi (2016) found that even in the high school setting that when students were thoroughly informed, it provided some amount of motivation, a sense of ownership causing them to be more inclined to follow the rules. Rijavec and Miljkovic (2015) investigated the reasons for college students missing classes. Rijavec and Miljkovic (2015) found "not being in the mood, personal issues, health issues, lecture issues and no negative consequences" (p.480) as reasons for missing classes. If students are willing to miss classes because there are no consequences this could indicate the need for enforcing a mandatory policy. In the current study reasons for missing classes were not ascertained. However, the handbook does account for explained absences which could include health or personal reasons. Latta and Lowenstein (2017) recommended that business students not miss any classes to prevent lost tuition and recommended a mandatory attendance policy for this reason. Notwithstanding, Verbeeren and Hoof (2007) questioned punishing students for a service they paid for but did not utilize.

## Summary

Based on the studies reviewed, throughout this paper it is clear that being present at class has several benefits as opposed to being absent. It is also noted that some students will not attend classes if they believe there are no consequences associated with absence. Notwithstanding, punishing adult learners for absenteeism has consequences not just for the learner, but also for the institution. Students that are forced to attend classes may not be as attentive to learning activities or may even be disruptive. Further mandatory attendance policies when enforced may have implications for retention rates. Such a
policy may also demotivate students to attend as it goes against their self-directedness. In this sense a mandatory attendance policy may be counter-productive. Administrators should also consider that students pay to study, if they take a decision to not attend classes they would have already lost. Penalizing students by barring them from examinations because they missed classes may be an additional charge to them. In this review of literature, several studies posited that students were more likely to attend classes when incentives are awarded (Braun \& Sellers 2012; Carroll \& Peter 2017; Lin 2014; Maskey 2012). In light of this, a policy that incentivizes attendance is recommended instead of enforcing the current policy.

## Policy Recommendation

The first recommendation is to not bar students from examinations based on percentage of hours attended. This recommendation is based on the following reasons: Firstly, while the correlation study indicated that there was a positive relationship between attendance and final examination grade, there was only a slight relationship. Further, on average students did not meet the $90 \%$ of hours taught as is stipulated by the current policy but still passed the course. If these students were all blocked from sitting final examinations, it could have negative implications for the graduation rate. Seeing that attendance has a positive effect on grades as was indicated in the findings, administrators and faculty would need to find creative means to encourage class attendance for all students considering academic freedom (McFarlane, 2013). According to Knowles the adult learner is self-directing and will reject pressures imposed on him by others. A mandatory policy may therefore raise fundamental issues for adult learners, as
such, a more flexible policy would be required. Based on the findings in the local study and scholarship, a policy that informs and rewards attendance is recommended.

## Inform

Students should be adequately notified of the relationship between attendance and performance. Information dissemination could be achieved through lecturers communicating these implications at the beginning of each semester as well as to include this information on each course outline. Arming students with this information is critical in promoting self-directed learners. As was indicated by Mati, Gatumu and Chandi (2016), students are more inclined to follow an institutions rules and policies when they have been adequately informed. Where the classroom is blended, students should be adequately informed what constitutes attendance in the online setting and how it is accounted for in the handbook as well as on their course outline. The current attendance policy does not speak to the online classroom. The policy should not only inform the student, but lecturers would also report to academic advisors when students have missed two consecutive classes for follow-up to take place.

## Reward

Given that there is a current policy that has not been enforced, continuing this policy or creating a new policy that requires similar enforcement might meet the same fate. The study did not ascertain lecturers' position on enforcing the current policy. However, lecturers maybe more open to rewarding attendance as opposed to punishing absence (Braun \& Sellers 2012; Lin 2014). As such, it is recommended, that students be rewarded to attend classes through increasing the opportunity cost of missing classes.

Increasing the opportunity cost of missing classes can be done by using questions from reviews and in class exercises on the midterm examination. Points should also be awarded for other in class activities like discussions. Awarding points for classroom activities will have real implications for student's course work grade that was most affected by absenteeism. An attendance bonus can also be considered. If an attendance bonus is considered, it should be explicitly stated so that both student and lecturers are clear on requirements for award of this bonus.

A potential barrier to the proposed policy maybe lack of participation of lecturers in informing students of the relationship between attendance and performance and the reporting absences. However, if prior to implementation of policy they are adequately informed and they are given the opportunity to contribute to the discussion, their support should be confirmed. Implementation of the proposed policy is proposed for the 20192020 academic year. Implementing the policy in the 2019-2020 academic year would give adequate time for familiarization and acceptance from the various stakeholders. In addition, it would allow for policy update in the student handbook. It is also recommended that a series of town hall type meetings be held with faculty and the student body to further disseminate information concerning the recommended policy.

## Project Evaluation Plan

The overall goal of this project is to propose policy initiatives that will encourage class attendance while taking into consideration current findings and research. The policy recommendation will be evaluated based on outcome and in a formative way. Outcome based evaluation is used to determine the effectiveness of the initiatives as described in

Appendix A. The outcome will be evaluated though comparing future average attendance and performance scores of day and evening students with previous ones. The evaluation will be completed through the institution's Office of Research and would be outcome based. Keen attention will be given to students with matriculation to identify how effective this initiative is in improving student attendance and grades. The formative evaluation will be used to ensure continuous improvement. A survey of students, and faculty would be used to gain their perception on the effectiveness of the strategies used to encourage attendance yearly. The survey used should also afford participants the opportunity of proposing other means of encouraging attendance. The survey of students, and faculty will be developed and executed by the Office of Research. Through use of this evaluation measure, administrators and faculty will be able to determine the effectiveness of proposed policy and make adjustments where required. Evaluation after implementing the proposed policy will facilitate efficient use of the institution's resources. The results from the evaluations can be discussed at the end of summer meeting of faculty and administrators prior to the beginning of each academic year.

## Project Implications

## Local Community

Through acknowledging the self-directedness of adult learners, the findings in this study and the scholarship of others, the proposed policy could have the following possible social change implications: The focus of the policy may cause students to attend more classes which has been proven to positively correlate with grades. Improved attendance could have positive effects for the culture of the institution in terms of
retention and completion. Higher grades could lead to higher retention and graduation rates. Jones (2015) posited that institutions should focus more on student completion rather than a culture of enrollment. Retention can be further improved through special monitoring and mentoring students (Cotton et al., 2017). Administrators and faculty could through executing this policy ensure that students have the requisite information concerning attendance to make decisions that are in their best interest, thereby reinforcing self-directedness (Dee, 2015). In addition, because there are incentives for attending classes through the reward component of the policy, there can be significant improvement in coursework grades, which will have an impact on the overall grade students, receive.

## Far-Reaching

The problem as stated in section one can be identified in other local institutions. If the recommended policy is adopted and is successful after implementation, the recommended policy could aid other institutions in revisiting their policies. In addition, by continuing data collection through the evaluation plan, additional scholarship could be added to the plethora of available studies. Finally, the promotion of a policy that informs would help students in being critical thinkers that contribute positively to their communities.

Appendix B: Source Data

| Student ID | Attendance \% | Grade Course Work | Grade Final Exam | Final Grade | Matriculation Status | Mode of Attendance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 22\% | 36.5 | 65 | 53.6 | Full | Day |
| 2 | 31\% | 40 | 40 | 40 | Partial | Day |
| 3 | 9\% | 30 | 65 | 51 | Partial | Day |
| 4 | 49\% | 53.25 | 59 | 56.7 | Partial | Day |
| 5 | 18\% | 21 | 30 | 26.4 | Partial | Day |
| 6 | 53\% | 71.25 | 53 | 60.3 | Partial | Day |
| 7 | 44\% | 61 | 53 | 56.2 | Partial | Day |
| 8 | 40\% | 76 | 47 | 58.6 | Partial | Day |
| 9 | 36\% | 32 | 55 | 45.8 | Partial | Day |
| 10 | 27\% | 53.25 | 41 | 45.9 | Partial | Day |
| 11 | 31\% | 89 | 81 | 84.2 | Partial | Day |
| 12 | 49\% | 55 | 42 | 47.2 | Partial | Day |
| 13 | 49\% | 82.5 | 59 | 68.4 | Partial | Day |
| 14 | 0\% | 0 | 57 | 34.2 | Full | Day |
| 15 | 18\% | 70 | 74 | 72.4 | Partial | Day |
| 16 | 53\% | 58.5 | 64.5 | 62.1 | Full | Day |
| 17 | 100\% | 95.5 | 81 | 86.8 | Full | Day |
| 18 | 49\% | 57 | 47 | 51 | Partial | Day |
| 19 | 100\% | 83.5 | 71 | 76 | Full | Day |
| 20 | 98\% | 76 | 55 | 63.4 | Full | Day |
| 21 | 98\% | 69.5 | 59 | 63.2 | Full | Day |
| 22 | 98\% | 70 | 75 | 73 | Full | Day |
| 23 | 82\% | 79.5 | 38 | 54.6 | Full | Day |
| 24 | 100\% | 80.5 | 71 | 74.8 | Full | Day |
| 25 | 98\% | 82.5 | 72 | 76.2 | Full | Day |
| 26 | 38\% | 53 | 33 | 41 | Full | Day |
| 27 | 80\% | 61.5 | 46 | 52.2 | Full | Day |
| 28 | 93\% | 81.5 | 76 | 78.2 | Full | Day |
| 29 | 71\% | 87.5 | 51 | 65.6 | Full | Day |
| 30 | 58\% | 74.5 | 53 | 61.6 | Full | Day |
| 31 | 84\% | 86 | 53 | 66.2 | Full | Day |
| 32 | 44\% | 69 | 37 | 49.8 | Full | Day |
| 33 | 89\% | 77 | 48 | 59.6 | Full | Day |
| 34 | 53\% | 59.5 | 44 | 50.2 | Full | Day |
| 35 | 44\% | 58 | 19 | 34.6 | Full | Day |
| 36 | 84\% | 83.5 | 64 | 71.8 | Full | Day |


| Student ID | Attendance \% | Grade Course Work | Grade Final Exam | Final Grade | Matriculation Status | Mode of Attendance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 37 | 63\% | 72 | 36 | 50.4 | Partial | Day |
| 38 | 83\% | 59.5 | 45 | 50.8 | Partial | Day |
| 39 | 100\% | 53.75 | 25 | 36.5 | Partial | Day |
| 40 | 48\% | 63 | 47 | 53.4 | Partial | Day |
| 41 | 75\% | 80.5 | 42 | 57.4 | Partial | Day |
| 42 | 54\% | 64.75 | 41 | 50.5 | Partial | Day |
| 43 | 50\% | 59.5 | 44 | 50.2 | Partial | Day |
| 44 | 25\% | 54 | 26 | 37.2 | Partial | Day |
| 45 | 88\% | 69.5 | 40 | 51.8 | Partial | Day |
| 46 | 79\% | 54.5 | 36 | 43.4 | Partial | Day |
| 47 | 76\% | 76 | 52 | 61.6 | Full | Day |
| 48 | 84\% | 76.5 | 83 | 80.4 | Full | Day |
| 49 | 96\% | 84.5 | 70 | 75.8 | Full | Day |
| 50 | 76\% | 54.5 | 51 | 52.4 | Partial | Day |
| 51 | 92\% | 80 | 57 | 66.2 | Full | Day |
| 52 | 76\% | 66 | 49 | 55.8 | Full | Day |
| 53 | 80\% | 62 | 69 | 66.2 | Full | Day |
| 54 | 92\% | 72 | 38 | 51.6 | Full | Day |
| 55 | 88\% | 72 | 55 | 61.8 | Full | Day |
| 56 | 80\% | 73 | 48 | 58 | Full | Day |
| 57 | 72\% | 63.5 | 31 | 44 | Full | Day |
| 58 | 88\% | 57.5 | 45 | 50 | Full | Day |
| 59 | 68\% | 66.5 | 40 | 50.6 | Full | Day |
| 60 | 40\% | 47.5 | 35 | 40 | Full | Day |
| 61 | 60\% | 69 | 67 | 67.8 | Full | Day |
| 62 | 72\% | 60.5 | 24 | 38.6 | Full | Day |
| 63 | 64\% | 64.5 | 26 | 41.4 | Full | Day |
| 64 | 80\% | 64 | 54 | 58 | Full | Day |
| 65 | 76\% | 78.5 | 49 | 60.8 | Full | Day |
| 66 | 60\% | 65 | 40 | 50 | Full | Day |
| 67 | 42\% | 79.5 | 76 | 77.4 | Partial | Day |
| 68 | 100\% | 77.5 | 71 | 73.6 | Full | Day |
| 69 | 100\% | 72.5 | 44 | 55.4 | Full | Day |
| 70 | 92\% | 68.5 | 55 | 60.4 | Full | Day |
| 71 | 88\% | 71 | 57 | 62.6 | Full | Day |
| 72 | 92\% | 74 | 79 | 77 | Full | Day |
| 73 | 96\% | 78 | 94 | 87.6 | Full | Day |
| 74 | 92\% | 74.5 | 60 | 65.8 | Full | Day |


| Student <br> ID | Attendance <br> $\%$ | Grade <br> Course <br> Work | Grade <br> Final <br> Exam | Final <br> Grade | Matriculation <br> Status | Mode of <br> Attendance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 75 | $92 \%$ | 75.5 | 79 | 77.6 | Full | Day |
| 76 | $100 \%$ | 68.5 | 59 | 62.8 | Full | Day |
| 77 | $96 \%$ | 69.5 | 63 | 65.6 | Full | Day |
| 78 | $79 \%$ | 79.5 | 47 | 60 | Full | Day |
| 79 | $96 \%$ | 74.5 | 61 | 66.4 | Full | Day |
| 80 | $96 \%$ | 71.5 | 54 | 61 | Full | Day |
| 81 | $100 \%$ | 77.5 | 79 | 78.4 | Full | Day |
| 82 | $100 \%$ | 71.5 | 82 | 77.8 | Full | Day |
| 83 | $100 \%$ | 77.5 | 88 | 83.8 | Full | Day |
| 84 | $92 \%$ | 62.5 | 33 | 44.8 | Full | Day |
| 85 | $83 \%$ | 77.5 | 46 | 58.6 | Full | Day |
| 86 | $75 \%$ | 73 | 51 | 59.8 | Full | Day |
| 87 | $79 \%$ | 72 | 70 | 70.8 | Full | Day |
| 88 | $92 \%$ | 69 | 64 | 66 | Full | Day |
| 89 | $96 \%$ | 77 | 59 | 66.2 | Full | Day |
| 90 | $79 \%$ | 70 | 55 | 61 | Full | Day |
| 91 | $67 \%$ | 67.5 | 51 | 57.6 | Full | Day |
| 92 | $67 \%$ | 68.5 | 63 | 65.2 | Full | Day |
| 93 | $92 \%$ | 78 | 88 | 84 | Full | Day |
| 94 | $65 \%$ | 81.25 | 69 | 73.9 | Full | Day |
| 95 | $71 \%$ | 83.25 | 52 | 64.5 | Full | Day |
| 96 | $88 \%$ | 76.75 | 54 | 63.1 | Full | Day |
| 97 | $76 \%$ | 63.25 | 33 | 45.1 | Partial | Day |
| 98 | $65 \%$ | 85.75 | 63 | 72.1 | Full | Day |
| 99 | $12 \%$ | 85.75 | 61 | 70.9 | Full | Day |
| 100 | $95 \%$ | 82.5 | 40 | 57 | Full | Evening |
| 101 | $80 \%$ | 88.25 | 66 | 74.9 | Full | Evening |
| 102 | $90 \%$ | 83.5 | 57 | 67.6 | Full | Evening |
| 103 | $95 \%$ | 85.5 | 76 | 79.8 | Full | Evening |
| 104 | $90 \%$ | 82.5 | 48 | 61.8 | Full | Evening |
| 105 | $95 \%$ | 82.5 | 83 | 82.8 | Full | Evening |
| 106 | $85 \%$ | 75 | 67 | 70.2 | Full | Evening |
| 107 | $90 \%$ | 75.5 | 65 | 69.2 | Full | Evening |
| 108 | $80 \%$ | 67.5 | 56 | 60.6 | Full | Evening |
| 109 | $100 \%$ | 77.5 | 50 | 61 | Full | Evening |
| 110 | $85 \%$ | 85.75 | 76 | 79.9 | Full | Evening |
|  | $95 \%$ | 72.5 | 61 | 65.6 | Partial | Evening |
|  | $55 \%$ | 72.5 | 47 | 57.2 | Full | Evening |
| 72 |  |  |  |  |  |  |


| Student <br> ID | Attendance <br> $\%$ | Grade <br> Course <br> Work | Grade <br> Final <br> Exam | Final <br> Grade | Matriculation <br> Status | Mode of <br> Attendance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 113 | $95 \%$ | 81 | 61 | 69 | Partial | Evening |
| 114 | $95 \%$ | 42.5 | 22 | 30.2 | Full | Evening |
| 115 | $80 \%$ | 77.5 | 63 | 68.8 | Full | Evening |
| 116 | $80 \%$ | 77.5 | 67 | 71.2 | Full | Evening |
| 117 | $90 \%$ | 82.5 | 68 | 73.8 | Full | Evening |
| 118 | $50 \%$ | 73.5 | 43 | 55.2 | Full | Evening |
| 119 | $90 \%$ | 82.5 | 64 | 71.4 | Partial | Evening |
| 120 | $80 \%$ | 85.75 | 68 | 75.1 | Full | Evening |
| 121 | $85 \%$ | 70 | 59 | 63.4 | Full | Evening |
| 122 | $90 \%$ | 77.5 | 71 | 73.6 | Full | Evening |
| 123 | $90 \%$ | 70 | 50 | 58 | Full | Evening |
| 124 | $95 \%$ | 72.5 | 42 | 54.2 | Full | Evening |
| 125 | $100 \%$ | 73.25 | 55 | 62.3 | Full | Evening |
| 126 | $75 \%$ | 78 | 64 | 69.6 | Full | Evening |
| 127 | $90 \%$ | 75 | 49 | 59.4 | Full | Evening |
| 128 | $85 \%$ | 75 | 46 | 57.6 | Full | Evening |
| 129 | $95 \%$ | 82.5 | 65 | 72 | Full | Evening |
| 130 | $85 \%$ | 83.5 | 77 | 79.6 | Full | Evening |
| 131 | $80 \%$ | 72.5 | 64 | 67.4 | Full | Evening |
| 132 | $80 \%$ | 70 | 51 | 58.6 | Full | Evening |
| 133 | $100 \%$ | 67.5 | 60 | 63 | Full | Evening |
| 134 | $100 \%$ | 80 | 57 | 66.2 | Full | Evening |
| 135 | $60 \%$ | 83.25 | 60 | 69.3 | Full | Evening |
| 136 | $70 \%$ | 78 | 55 | 64.2 | Full | Evening |
| 137 | $75 \%$ | 75.75 | 47 | 58.5 | Full | Evening |
| 138 | $95 \%$ | 77.5 | 64 | 69.4 | Full | Evening |
| 139 | $85 \%$ | 28.25 | 57 | 45.5 | Full | Evening |
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