

**EVALUATING THE RELATIONSHIP BETWEEN STUDENT ATTENDANCE AND ACADEMIC PERFORMANCE**

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Abstract

The study of significant factors of student's academic performance is an important issue in higher education in the contemporary situation. Among all factors, whether or not attending academic classes affects a student's exam performance has obtained considerable attention in the world. In this paper, an experiment of mean differences has been conducted to study the attendance which affect students' performance as per the literature. This kind of study has long been neglected by researchers when considering the impact of academic class attendance on students' academic performance in the higher education sector of Sri Lanka Institute of Advanced Technological Education. Particularly, in this research, under the mean difference experiment approach, three levels of students group with three levels of attendance such as group - A (The students' attendance was less than 35%), group - B (The students' attendance was between 36% to 75%) and group - C (The students attendance was more than 76%) have been compared with the mean differences of the marks of the exam. Eventually, it is found that the academic class attendance has formed a constructive and significant impact on students' exam performance. Hence, the recommendation is stated as the students should concentrate on their attendance in order to uplift their performances the academic field.

Key words:

Class attendance, Academic performance, Class absenteeism, Higher education, Mean differences

Introduction

It is very significant to mention that the student attendance is an important issue in today's' higher education. Several institutions of higher education have compulsory attendance policies, while others refrain from making it as such. Despite the different policies, there seems to be a consensus among the intellectuals about the positive effect of attendance in academic performance. Not attending classes is seen as one of the reasons for academic failure. The recent developments in information and technology require a re-evaluation of the traditional method of study and the belief that diploma students benefit from class attendance should be tested. Moreover the presence of the new study methods based on distance learning requires a further analysis and discussion on the physical course attendance. In the last decade, a number of studies have investigated the relation between class attendance and academic performance internationally reaching to the conclusion that there exists a positive correlation between these two Gottfried (2009), Chen and Lin (2008), Stanca (2006), but there are no any researches in relation to the higher education at SLIATE. As per the gap, along with the direct investigation, this study aims at looking into the effect of attendance in academic performance using data collected from Higher National Diploma course from an English programme in SLIATE. The study of different aspects and contexts of this issue, would positively affect higher education policies. The establishment of a correlation between attendance and performance would assist in applying different policies and it will have a wider effect in informing the policy makers in higher educational field. Indeed, this research presents experimental evidence for the relationship of attendance and performance of the students. The evidences presented in this research will essentially increase the body of literature, definitely relating to research on performance and attendance.

**Literature Review:**

Gottfried (2009) empirically examines the relationship between attendance and performance using a baseline model and value-added model consisting of 86,000 students in kindergarten through grade 8 for the years of 1994/1995 to 2000/2001. This study finds that there is a positive relationship between these two variables. Chen and Lin (2008) examines the relationship between attendance and performance conducting a survey of 114 students who attended the Public Finance course at Tamkang University in Taiwan in the Spring of 2005. The study finds that the class attendance has produced a positive and significant impact on students' exam performance. It is found that on average, attending lectures corresponds to a 7.66% development in exam performance for students who select to appear in the lectures. Van Blerkom (2001) investigates the relationship between attendance and performance in Pennsylvania State University using the spiralling model and correlation matrix. The study shows that good attendance could effect in better grades, or good grades could lead to improve attendance. Stanca (2006) assesses the relationship between attendance and performance conducting a survey of 766 students attending the Introductory Microeconomic course at the University of Milan in the academic years 2001 to 2004. His study finds that attendance could affect exam performance because students learn how to do well in the exam, without any actual effect on the quality of learning. Roby (2004) examines the relationship between attendance and performance in Ohio public schools using correlation statistics and proficiency test. The study suggests that there is a statistically significant relationship between attendance and student achievement in Ohio public school. Guleker and Keci (2014) investigates the relationship between attendance and performance in the undergraduate courses in Civil Engineering in a private university in Tirana: in a span of three academic years: 2009-2010, 2010-2011, and 2011-2012. Their study finds that there is a strong correlation between the two variables; attendance and performance. Gunn (1993) assesses the relationship between attendance and performance using the students from one of 8 classes of first-year psychology offered at Laurcntian University at the Siidbiiry, Ontario, Canada campus during the 1989-1990 academic year. This study finds that there is a positive relationship between attendance and performance. Rodgers (2001) examines the relationship between attendance and performance using panel data study with undergraduates at a medium size Australian university. This study finds that attendance is found to have a small, but statistically significant, effect on performance. Kirby and McElroy (2003) examines the relationship between attendance and performance using panel data and empirical model with the population of 368 first year economics students in two separate classes in University College Cork, a Commerce class and an Arts class. The study finds that attendance is more important for enhancing grade rather than obtaining a pass mark. Zhao (2006) examines the relationship between attendance and performance with the availability of undergraduates at a state-supported regional university in Arkansas in the fall 2005 semester. This study provides direct evidence regarding the pure relationship between absenteeism and student learning. It appears that when students missed more (or fewer) classes over the semester, their exam scores significantly declined (or increased). Class attendance does affect individual student's performance.

Methodology

The intentions of the research were to find whether there are mean differences in the marks of the examination among the stipulated students group according to their attendance and the performance. Two hypotheses of the research were developed for the research; H_0 : There are no mean differences in the marks of the examination among the stipulated students group according to their attendance. H_1 : There are mean differences in the marks of the examination among the stipulated students group according to their attendance. The sample for this study was collected from 150 students of advanced technological Institute, Sammanthurai who were reading for their Higher National Diplomas in English. The sample represented all the villages of the Ampara district of Eastern Province of Sri Lanka, and they were in mixed gender with age varied form 20- 25 and all of them were having Tamil as their first language. All 150 students were set in the class. After three month of the course work with the new knowledge in linguistics, as per attendance for the subject of the students, the



sample was grouped into three groups namely group - A (The students’ attendance was less than 35%), group - B (The students’ attendance was between 36% to 75%) and group - C (The students attendance was more than 76%). And also, an exam paper in linguistics was given to all the 150 students and the students were tested. The performance of the students was compared with their attendance with the availability of mean differences among the groups. The test was carried out as a research instrument and through which data was collected for the study. The test content was validated by a team of English language teachers. The team was asked to validate the content of the test with regard to test instructions, the relevance of questions to content, its suitability to the research goals and objectives, the number and arrangement of questions, and the suitability of the time allocated to the test. The remarks of the validating team, their notes and suggestions were taken into consideration, and the researchers made the necessary modifications before applying the test. In order to satisfy the research objectives, this study wanted to examine the inter-relationship between two key components; attendance of the students and the performance of the students in the examination through assessment.

Hypothesis

H₀: There are no mean differences in the marks of the examination among the stipulated students group according to their attendance.

H₁: There are mean differences in the marks of the examination among the stipulated students group according to their attendance.

Results and Discussion

The data analysis and findings bring out the representation of data which were collected through the testing. In this analysis, significant *p* value and mean difference were mainly considered with the support of Statistic Package for Social Science – version 23. And also, the table number 1 shows the marks and the attendance which were categorised for all the 150 students who were utilised in the research.

Table 1

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation
marks	150	84	12	96	63.77	15.699
attendance	150	86	14	100	62.15	18.692
Group	150	2	1	3	1.98	.549
Valid N (listwise)	150					

Table number 2 describes that group A obtains 24 students with the mean of 33.21, group B obtains 105 students with the mean of 67.06, group C obtains 21 students with the mean of 82.29 and total 150 students obtain the mean of 63.77.



Table 2

Descriptives

marks	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
					Group A	24		
Group B	105	67.06	4.584	.447	66.17	67.94	56	76
Group C	21	82.29	8.451	1.844	78.44	86.13	64	96
Total	150	63.77	15.699	1.282	61.24	66.31	12	96

Table 3 shows the *p* value (0.000) of ANOVA tables which is available between the groups and the within the groups. It means that there are mean differences among them.

Table 3

ANOVA

marks	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	30750.382	2	15375.196	378.591	.000
Within Groups	5969.901	147	40.612		
Total	36720.283	149			

In the table 4, the Post Hoc Test, as per Turkey HSD and LSD, shows the multiple comparisons among the groups of A, B and C and the mean differences vary significantly among them. And also, the *p* value among those groups stand as (0.000) which is less than critical alpha value 0.05 at 95% confidential level. Hence, the null hypothesis (H_0) is rejected and the alternative hypothesis (H_1) is not rejected. It means that there are mean differences in the marks of the examination among the stipulated students group according to their attendance. And also, this finding is consistent with Gottfried (2009), Chen and Lin (2008), Van Blerkom (2001) as they have expounded the positive relationship between the attendance and the performance of the students in their academic field.

Table 4



Multiple Comparisons

Dependent Variable: marks

	(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	Group A	Group B	-33.849 ^a	1.442	.000	-37.26	-30.43
		Group C	-49.077 ^a	1.904	.000	-53.59	-44.57
	Group B	Group A	33.849 ^a	1.442	.000	30.43	37.26
		Group C	-15.229 ^a	1.523	.000	-18.84	-11.62
	Group C	Group A	49.077 ^a	1.904	.000	44.57	53.59
		Group B	15.229 ^a	1.523	.000	11.62	18.84
LSD	Group A	Group B	-33.849 ^a	1.442	.000	-36.70	-31.00
		Group C	-49.077 ^a	1.904	.000	-52.84	-45.31
	Group B	Group A	33.849 ^a	1.442	.000	31.00	36.70
		Group C	-15.229 ^a	1.523	.000	-18.24	-12.22
	Group C	Group A	49.077 ^a	1.904	.000	45.31	52.84
		Group B	15.229 ^a	1.523	.000	12.22	18.24

^a. The mean difference is significant at the 0.05 level.

It is mentioned in the table, Means Plot, how the students groups numerically go with the mean of the marks in the examination according to the performance. Namely, group A obtains with the mean of 33.21, group B obtains with the mean of 67.06 and group C obtains with the mean of 82.29.

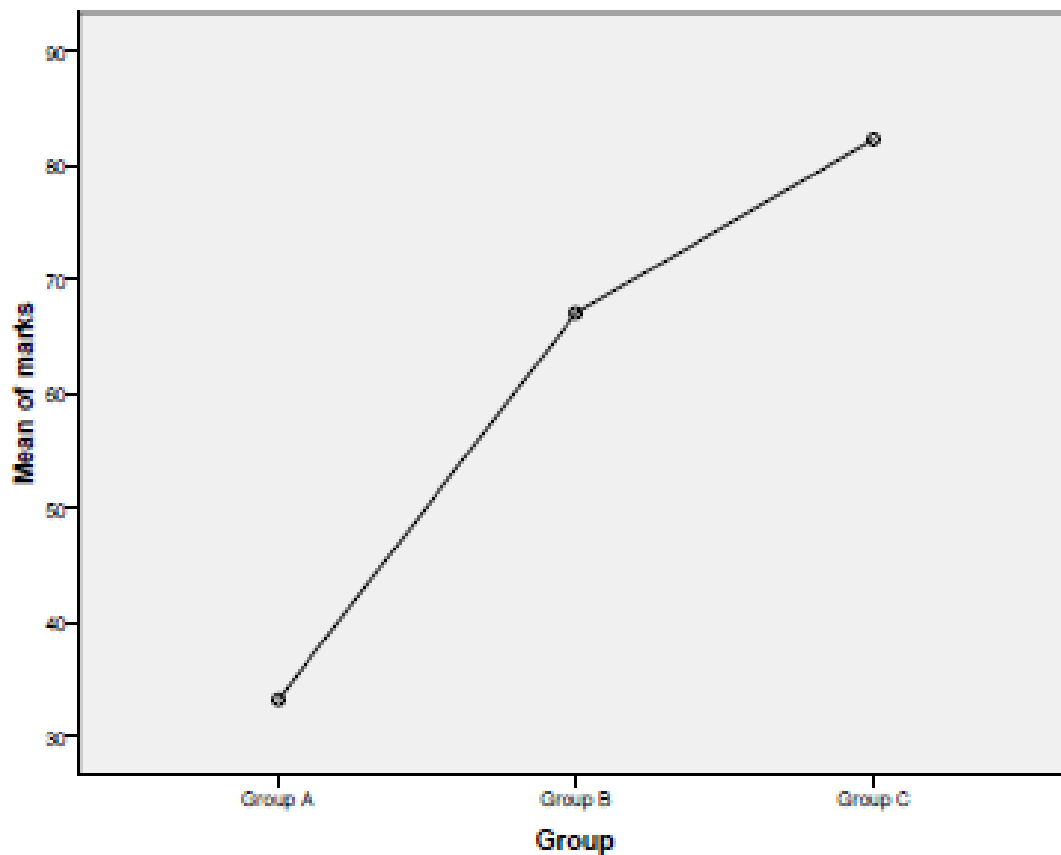


Figure 1

Conclusion

The students who attended the classes with high attendance percentage took high-level marks in the exams, the students who attended the classes with medium attendance percentage took medium-level marks in the exams and the students who attended the classes with low attendance percentage took low-level marks in the exams. Hence, the conclusion can be taken as there is strong relationship between the attendance and the performance of the students as Zhao (2006) examined the relationship between attendance and performance with the availability of undergraduates at a state-supported regional university in Arkansas in the fall 2005 semester and that study provided direct evidence regarding the pure relationship between absenteeism and student learning.

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