Compulsory Attendance Have an Impact in Academic Outcome

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ABSTRACT: The study of determinants of a college student's academic performance is an important issue in higher education. Among all factors, whether or not attending lectures affects a student's exam performance has received considerable attention. In this paper, we conduct a randomized experiment to study the average attendance effect for students who have chosen to attend lectures, which is the so called the aver-age treatment effect on the treated in program evaluation literature. This effect has long been neglected by researchers when estimating the impact of lecture attendance on student's academic performance. Under the randomized experiment approach, least squares, fixed effects, and random effects models all yield similar estimates for the average treatment effect on the treated. We find that, class attendance has produced a positive and significant impact on student's exam performance.

KEYWORDS: Attendance, Student, Academic outcome.

I. INTRODUCTION

Attendance in college is important because students are more likely to succeed in academics when they attend college consistently. It is difficult for teachers and students to build skills and progress if large numbers of students are frequently absent. In addition to falling behind in academics, students who are not in college on a regular basis are more likely to get into trouble with the law and cause problems in their communities. In European Union, it is commonly assumed that university students benefit from attending lectures. This assumption, however, needs to be tested, as developments in information technology are increasingly calling for a reassessment of the traditional approach to university education, largely based on physical attendance of lectures and classes, and a number of alternative weightless educational models, based on distance learning, are being introduced.

The main problem in assessing the effects of attendance on academic performance is that attendance levels are not exogenous, given that Internal controls is the whole system of controls financial and otherwise established by management in order to carry on business of an organization in an orderly manner to ensure adherence to management policies, safeguard the assets and secure as possible the completeness and accuracy of records. The study of determinants of a college student's academic performance is an important issue in higher education, among all factors, whether or not attending lectures and classroom discussions affects a student's exam performance has received considerable attention. It is commonly assumed that university students benefit from attending lectures. Lectures and other class meetings are a primary means of instructions in almost all undergraduate courses.

II. RELATED WORK

The literature survey included the journals the effect of student's attendance On Academic Performance: A Case Study at Simad University Mogadishu .The first paper deals with compulsory attendance have an impact in academic outcome. All these are explained below.

[1 In a widely cited study, Romer (1993) reported evidence on absenteeism in undergraduate economics courses at three major US universities, finding an average attendance rate of about 67 per cent. The paper also presented regression results, based on a sample of 195 Intermediate Macroeconomics students, indicating a positive and significant relationship between student's attendance and exam performance. This result was found to be qualitatively robust to the inclusion among the explanatory variables of students' grade point average and the fraction of problem sets completed 0.3 On the basis of these findings, Romer suggested that measures aimed at increasing attendance,

including making attendance mandatory, could be considered. Class attendance is very crucial for a better performance in a verbal based subject like Social Studies; it has further shown that gender factor is also crucial in analysing class attendance problem and eventual student achievement in Social Studies. Academic freedom in tertiary educational institutions provides students with opportunities to absent themselves from classes. The rates of absenteeism defer from one institution to another and various reasons are being adduced for this. One of the crucial factors for student's learning achievement is attendance at class. According to Durden and Ellis (1995) investigated the link between overall course grade and self-reported attendance levels in a sample of 346 principles of economics students over three semesters. Their results, based on OLS controlling for ability and motivational factors (GPA, college-entrance exam scores, having had a course in calculus) indicate that attendance matters for academic performance. In particular, whereas low levels of absenteeism have little effect on the eventual outcome, excessive absenteeism has a large and significant etc.

[1] In his widely cited paper \ Do students go to class? Should they?", Romer (1993) provided the first analysis of the relationship between lecture attendance and exam performance.2 Using attendance records in six sessions of his large (n = 195) Intermediate Macroeconomics course, he found that attendance had a positive and significant impact on academic performance. On the basis of these findings, Romer recommended experimenting with mandatory attendance policies to enhance student performance. Following on Roomer's (1993) seminar paper, several studies have attempted to measure the impact of attendance on learning outcomes. Durden and Ellis (1995) used student's self-reported number of absences to explore the relationship between absenteeism and academic achievement in several sections (n = 346) of a Principles of Economics course. Controlling for student differences in background, ability, and motivation, they found a nonlinear effect of attendance: while a few absences do not lead to lower grades, excessive absenteeism does. Using data on a sample of about 400 Agricultural Economics students at four large US universities, Devadoss and Foltz (1996) found that, after taking into account motivational and aptitude differences across students, the difference in exam performance between a student with perfect attendance and a student attending only half of the classes was, on average, a full letter grade. A positive and significant relationship between class attendance and academic performance was also found by Chan, Shum, and Wright (1997) and, more recently, by Rodgers. Two recent strands of the literature exploit the availability of richer data sets including repeated observations of the same student's responses to different questions, as well as different student's responses to different questions. The use of panel data models makes it possible to control for time-invariant characteristics of both students and exam questions. In the first of these two strands, Mar burger (2001, 2006), Lin and Chen (2006) and Chen and Lin (2008) built original data sets, matching student's absence records with teacher's records of the class sessions when the material corresponding to midterm exam questions was covered.

III. METHODOLOGY

Research is an academic activity and as such the term should be used in a technical sense. The research design refers to the overall strategy that you choose to integrate the different components of the study in a coherent and logical way, thereby, ensuring you will effectively address the research problem. The task of data collection begins after a research problem has been defined and research design/ plan chalked out. While deciding about the method of data collection to be used for the study, the researcher should keep in mind two types of data viz., primary and secondary. For this case study multiple choice questionnaire method is used as primary data. The sample area is taken as the students of ICET. The sample size should neither be excessively large, nor too small. It should be optimum. In this case study the sample size is 100.Ten Questions are prepared for questionnaire is shown in figure 1.

Figure 1: Questionnaire

IV. ANALYSIS AND RESULTS

After collection, the data has to be processed and analysed in accordance with the outline laid down for the purpose at the time of developing the research plan. Data processing includes editing, coding, classification and tabulation of data. Analysis, particularly in case of survey or experimental data, involves estimating the values of unknown parameters of the population and testing of hypotheses for drawing inferences. Analysis of data collected by the questionnaire shows that the respondents were happy to participate in the case study and almost all of them answered all the questions. The survey details are shown in the Table 1 as percentage. In below table contain a Column Q.No to represent the question number given in questionnaire.

Q. No	Agree (In %)	Disagree (In %)	Neutral (In %)
1	80	10	10
2	72	16	12
3	73	10	17
4	64	21	15
5	55	9	36
6	22	68	10
7	75	10	15
8	67	23	10
9	67	18	15
10	78	15	1

Table 1: Survey details

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Here Chi- square test is used for hypothesis testing. A chi-squared test can be used to attempt rejection of the null hypothesis that the data are independent. The chi- square test is always testing what scientists call the null hypothesis, which states that there is no significant difference between the expected and observed result.

The equation for Chi- square testing is given below:

$$\chi^2 = \Sigma \frac{(O_{ij} - E_{ij})^2}{E_{ij}}$$

Where,

O_{ij} =observed frequency of the cell in ith row and jth column.
E_{ij} =Expected frequency of the cell in ith row and jth column.

Here, testing of my hypothesis is going to be conducted.

H_0: Attendance has no impact in academic outcome.
H_1: Compulsory attendances have an impact in academic outcome.

The questions 1 and 7 are used for Chi- square test. Contingency table prepared for Chi- square testing is show in below as Table 2.

Sample	Agree	Disagree	Neutral	Total
Q.No 5	O_{11}=55 E_{11}=63.5	O_{12}=9 E_{12}=12.5	O_{13}=36 E_{13}=24	100
Q.No 2	O_{21}=72 E_{21}=63.5	O_{22}=16 E_{22}=12.5	O_{23}=12 E_{23}=24	100
Total	127	25	48	200

Table 2: Test Data

And Chi- square values are calculated from this Table 2 is also given below:

χ^2
1.13
0.98
6
1.13
0.98
6
Total=16.19

Table 3: χ^2 values

Here degree of freedom = (3-1) (2-1) =2
At 2 degree of freedom and 5 percentage level of significance, the critical value is 5.991 and calculated value is 16.19. The calculated value 16.19much greater than critical value, so I am rejecting the H_0 hypothesis, it states that Attendance have no impact in academic outcome. Compulsory attendances have an impact in academic outcome.
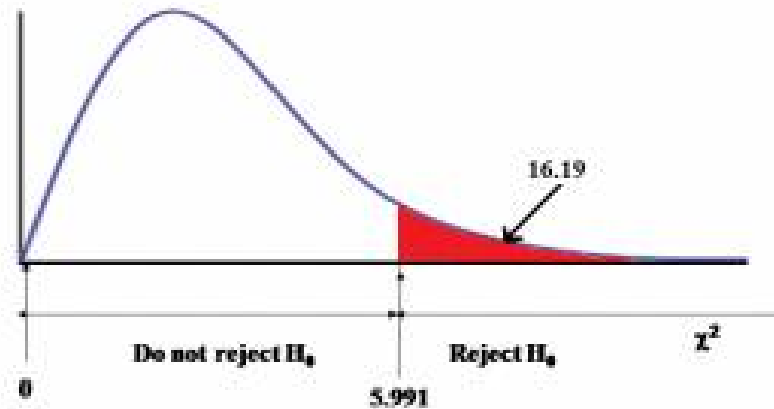
Figure 2: χ^2 test with degree of freedom 2

V. CONCLUSION AND FUTURE WORK

In this case study I have reached the conclusion that the attendance has a higher impact on the academic outcome. The purpose of this study was to investigate the relationship between student's attendance and academic performance in final year students at ICET. It is difficult for teachers and students to build skills and progress if large numbers of students are frequently absent. In addition to falling behind in academics, students who are not in college on a regular basis are more likely to get into trouble with the law and cause problems in their communities. The relationship between attendance and student achievement is only one area that impacts on performance. It is however a key factor with sufficient evidence and research to backup this concern. College need to place high priority on their procedures for monitoring and analysing patterns of attendance. A study of parental attitudes toward student attendance at school could also be useful area of in-formation to research. The key is that students need to be present at school to learn.

Future work concerns deeper analysis of the subject, new proposals or view points to it. It can be conducted for a large population. The respondents in this case study is restricted to the 4th year students of ICET. You can consider other students who studied in different colleges. The data may collect also through the online questionnaire. To increase the sampling area the online questionnaires can be send to the students and teachers all over to know their opinion.

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