



The Effect of Class Attendance on Academic Performance:

The Role of Active Classroom Participation

Dilafruz Kuchkorova

PhD candidate, Westminster

International University in Tashkent

Abstract: Student absenteeism has become an increasingly common issue at Westminster International University in Tashkent (WIUT). This study explores the relationship between class absenteeism and academic performance based on a sample of 108 students enrolled during the 2018–2019 academic year. The sample includes students of varying ages, academic levels, and courses.

Two primary datasets were analyzed: students' non-attendance records over a 12-week period and their final module grades. The findings aim to provide evidence-based insights into how class attendance influences academic outcomes. These results have practical implications for both university administrators and students, offering a basis for evaluating the effectiveness of the current attendance policy and informing future strategies to enhance student engagement and academic success.

Keywords: Student attendance, Academic performance, Class absenteeism, University policy, Student engagement



Аннотация: Пропуски занятий студентами стали все более распространённой проблемой в Вестминстерском международном университете в Ташкенте (WIUT). Данное исследование изучает взаимосвязь между посещаемостью занятий и академической успеваемостью на основе выборки из 108 студентов, зачисленных в 2018–2019 учебном году. Выборка включает студентов различного возраста, уровня подготовки и направлений обучения.

Были проанализированы два основных набора данных: записи о непосещении занятий за 12-недельный период и итоговые оценки по модулю. Полученные результаты направлены на предоставление доказательной информации о том, как посещаемость влияет на академические результаты. Эти выводы имеют практическое значение как для администрации университета, так и для студентов, обеспечивая основу для оценки эффективности текущей политики посещаемости и выработки будущих стратегий по повышению вовлечённости студентов и их академического успеха.

Ключевые слова: Посещаемость студентов, Академическая успеваемость, Пропуски занятий, Политика университета, Вовлечённость студентов

Annotatsiya: Toshkentdagi Vestminster xalqaro universitetida (WIUT) talabalar tomonidan dars qoldirish holatlari tobora keng tarqalgan muammoga aylanmoqda. Ushbu tadqiqot 2018–2019 o‘quv yili davomida tahsil olgan 108 nafar talabadan iborat namunaga asoslangan holda dars qoldirish va akademik natijalar o‘rtasidagi bog‘liqlikni o‘rganadi. Namuna turli yoshdagi, darajadagi va yo‘nalishdagi talabalarni o‘z ichiga oladi. Tahlil uchun ikki asosiy ma’lumot to‘plamidan foydalanildi: 12 hafta davomida dars qoldirish yozuvlari va modul yakuniy baholari. Tadqiqot natijalari darslarda qatnashish



akademik natijalarga qanday ta'sir qilishi bo'yicha faktlarga asoslangan tushunchalar beradi. Bu natijalar universitet ma'muriyati va talabalar uchun amaliy ahamiyatga ega bo'lib, hozirgi davomat siyosatining samaradorligini baholash hamda talabalar faolligi va muvaffaqiyatini oshirish bo'yicha kelgusi strategiyalarni shakllantirishda asos bo'lib xizmat qiladi.

Kalit so'zlar: Talaba davomati, Akademik natijalar, Dars qoldirish, Universitet siyosati, Talabalar faolligi

Introduction

Westminster International University in Tashkent is one of well-known and prestigious University in Central Asia. Every year the number of students is increasing significantly and the University is trying to provide better quality education. As in any other school, WIUT students also miss some amount of classes during their studies. As Nurhafizah et al (2018)[3] say, student decides to come to classes based on his motivation and ability to attend. However, in the case of WIUT, strict attendance policy is structured as follows: if a student misses five consecutive days he is called to disciplinary panel and is given 2 points to him. However, the university attendance tracking system only shows the time of the students enter and exit the campus. According to this policy if a student collects 7 points he will be excluded from the university. In order to avoid unwanted consequences, the students must fill the non-attendance form explaining why they were absent.

As a basic data of these results were taken Contemporary Issues in Global Economics (CIGE) module from Economics Subject Area. This module consists of one-hour lecture and two-hour seminar in a week. Attendance to lectures is optional, so there is no absence check in lectures. However, students must attend the seminars. If a student is not present in



any of his seminars (in all modules of that semester) during 3 consecutive weeks, then he will have serious problems.

Literature review

By today, numerous studies have attempted to establish the relationship between class participation and performance of students. Majority of them have actually found strong positive relationship of sustainable presentism in class with higher academic performance.

According to Ahmad et al., (2018) [1] there is a significant correlation among students' class attendance and academic performance. They took 98 students from Calculus course in 2016 in UiTM Penang Branch on diploma engineering. The statistics for attendance is indicated for 14 weeks and final exam score. The research's statistical analysis is descriptive, student's t-test, Pearson correlation and regression model ($t\text{-test} = 23.45$, $p < 0.05$). Also the discovery of the study is that there was a negative correlation ($r = -0.611$) between absenteeism and academic achievements. They found that regular truant students of Calculus have 2.11% lower marks from final exam than actively present students[1].

Another group of researchers - Lukkarinen, Koivukangas and Seppälä (2016)[5] also analyzed the relationship between class attendance and student performance. The methods, which had been used in this research, are cluster and regression analysis. The data was collected as separated 3 groups of students: 1) students who gave up before the final exam 2) students attended both classes and the exam 3) students studied autonomously and cruised at the exam. They found attendance and performance positively correlated in group 2. The statistics shows in group 3 students has reasonable evidence for not attending class and they could learn the module as effective. The variables of the analysis have been designated as exam points, total attendance, bonus motivation, age, gender and pre-course marks. The results are saying if students attend to class every day, the success of good



performance rate will be higher to 3.94 units. Absenteeism and performance are significantly correlated by Model1 and Model2, (0.620 and 0.607 actual performance), coincide with explained part of 38.4% and 36.8% of total variation in performance, accordingly. The findings of this research tells us the teachers should motivate students to attend classes and to get higher results from the exams [5].

According to the founding of Chafloque Céspedes et al., (2017)[3], being at the lesson has a great result on academic performance ($\beta = 0.628$) in contrast with being absent at the lesson ($\beta = 0.101$). The self-report survey of 8,203 students are taken as a sample from the business and engineering schools of Peruvian universities [3]. Non-appearance includes a more noteworthy impact on courses and disapproved terms (Beta = 0.163) and presentism, on the advancement of academic execution ($\beta = -0.145$) [3].

Another study on the same topic of this coursework made by Haque (2012)[4]. Researcher tried to increase Probabilistic Neural Net (PNN) based on Genetic Algorithm to correlate absenteeism and academic performance by contrasting final exam scores and attendance of 130 students. Their results showed that attendance and student grades are significantly correlated and it is used to forecast a new 80 students' success rate. To conclude, the author increased PNN based GA model to predict the student's exam results due to their absence rate [4].

Daniel Marburger (2001) [6] discovered that mandatory attendance improves student performance. His findings proposed a mandatory attendance decreases absenteeism and increases academic performance. He took the data from two groups: policy class and no policy class. The probit equation is used and the dependent variable – “absent” was coded 1' if the students has not been in class [6]. Independent variables are “no policy”, the average number of weekly job hours, the number of credit hours, whether the student lives



in university dormitory. These variables affect student absenteeism and other variables such as GPA, age effect to student academic performance. The findings show that even if the absenteeism does not increase the fail rate of first exam, but it affects seriously 0.87% to second exam and 1.96% to third exam respectively [6].

Teixeira (2016) [7] suggests that mandatory attendance policy is advantageous for students' academic performance. The survey was based on 146 macroeconomics students at an elite school in Portugal [7]. The findings show that absenteeism decreased final exam score about 2 points in a 0-20 point grading scheme. Teixeira taught Macroeconomics module and took 205 students of this module as a sample and checked their attendance for 14 weeks [7]. This paper was estimated by OLS and divided by 4 models. Model 1-only absent students from class, model 2-the students' GPA, model 3- computed an average mark of students' secondary/high school studies and model 4 - is all variable plus attendance (ibid). All models are significant, especially model 2 is -4.19 of GPA decreased if 1 day missed [7].

Class participation is very individual choice based on both the capability to attend and the enthusiasm to attend [7]. The personal decision to come to lectures and tutorials is effected by many features [4]. The majority of the students considered the contract fee of the university is expensive and cannot afford it. They had to work hard and had to miss number of the classes even though they had strong wish to attend classes. Non-attendance is claimed to be a measure of low level of stimulation for studying. According to the survey of 782 graduate students UK university education is suffering from students who have to work because of expensive fees of the tuition [4]. However due to the other UK universities claim that, forgetting is given as the most frequent reason [4].



Data collection

As described earlier, this study is based primary data collected by me using Student Record System and submitted non-attendance forms. Below you may find some descriptive statistics based on those forms.

According to the data, 153 girls and 387 boys missed the classes:

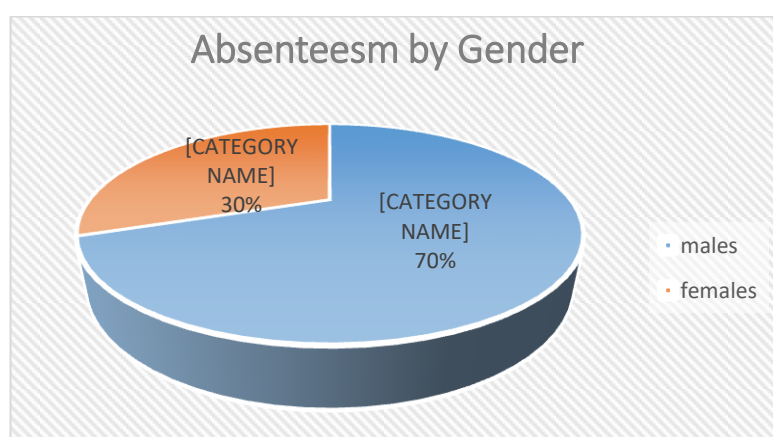


Table 1. Absenteeism Rates by Gender

Source: Author's own data collection

The bar chart below summarizes the reasons for not attending classes by WIUT students:

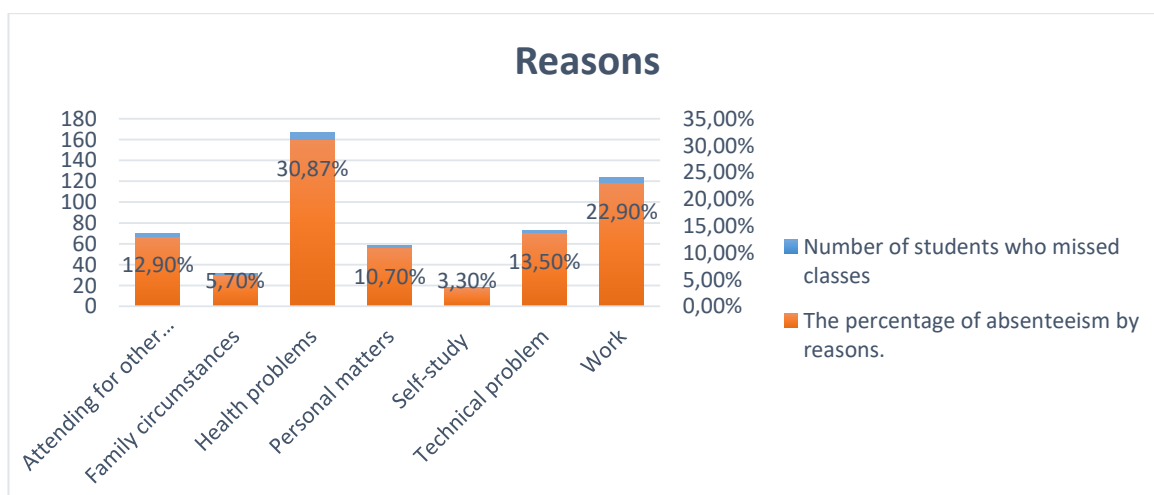




Table 2. Main Causes of Class Absences Among Students

Source: Author's own data collection

Majority part of the surveyed students could not attend due to health problems. Another huge number of students could not come to the classes due to work. Financial problems, poor family conditions and the increasing tuition fee of the university were shown as a major factor which caused to make them work (124 students accordingly).

The next factor for absenteeism comes from attending the other tutor's class and technical problems as more than 70 students. According to the students' opinion, some lecturers cannot lead the class and give motivation to study, they cannot teach the class in an interesting and new method. However, all lecturers of the WIUT are skilled, experienced, and hired after many steps for selection to the WIUT. 73 students claim that there were some technical problems during the seminars: such as being late and the teacher had already checked for attendance at the beginning of the lesson, uncomfortable timetable, changing timetable frequently, the system was not working during the lesson and so on.

Next barrier for the attendance were family circumstances and personal matters (31 and 58 students accordingly). Majority of female students stated that they missed classes due to family circumstances. They wrote the reason to the non-attendance form as were married, had to take care of the child, wedding of relatives, going hometown, and many household duties as a new bride and so on. However, 58 students missed lessons as the reason of personal matters such as did not understand the topic or has been on a court, not aware of group number, did not know the timetable, fallen asleep, improper time management, much homework from the module. There were even fancy reasons which had nothing to do with the class attendance: no place for parking or traffic jam.



To sum up, the last cause is self-study, 18 students wrote that, they felt bad and found the seminars and lectures are too boring and useless, they could study better for themselves, and they spent their time in the library for the preparing for coursework and exams.

As for the data used in econometric analysis, it contained mainly basic information which could be tracked by SRS. Particularly, CIGE module was chosen because of integrity of the tutor with regard to attendance. Population size was 330, and the sample size of 108 students was randomly chosen with the help of Excel. Main variable in interest is the final mark of a student for CIGE module, and main explanatory variable is absent hours of a student from this particular module. Age, gender and average mark of the student for level 3 were other independent variables which may correlate with his/her final mark of that module.

Variable	Obs	Mean	Std. Dev.	Min	Max
-----+-----					
age	108	21.03704	1.143253	19	26
male	108	.6666667	.4736022	0	1
l3_avg_mark	108	58.11482	8.589548	44.4	81.8
absent_hours	108	3.444444	2.525879	0	11
cige_modul~k	108	60.49074	17.394	11	93

Table 3. Summary of the data.

So, as we see, age of a student ranges from 19 to 26. 66% of students are males. Minimum average mark for level 3 modules is 44.4 and maximum is 81.8. Being absent from this CIGE module starts from 0 hours and ends at 11 hours with maximum amount. Finally, final mark ranges from as low as 11 to as high as 93.



Estimation strategy and results

Using Westminster University SRS system 2023-2024 academic year data, regression of several variables has been tried to analyze the effect of class absenteeism to academic performance. As a dependent variable, the final exam mark of level 4 students was taken. As independent variables, student's age, gender, Level3 (CIFS) average mark and absent hours during the class has been taken. Regression results are based on the following equation:

$$Mark_i = \beta_0 + \beta_1 age + \beta_2 gender + \beta_3 level3 \text{ average mark} + \beta_4 absent \text{ hours} + u$$

where $Mark_i$ is student's final mark from CIGE module, β_0 is intercept, β_2 is the coefficient of being male student, β_3 is net effect of level 3 marks on CIGE final mark. Main interested variable is absent hours and β_4 shows the net effect of being absent from CIGE class on the final outcome.

OLS model was used to estimate the relationship of attendance to CIGE classes to the final mark achieved from this module.

Source	SS	df	MS	Number of obs	=	108
-----+-----				F(4, 103)	=	34.77
Model	18599.1177	4	4649.77942	Prob > F	=	0.0000
Residual	13773.8731	103	133.726923	R-squared	=	0.5745
-----+-----				Adj R-squared	=	0.5580
Total	32372.9907	107	302.551315	Root MSE	=	11.564

cige_modul~k	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	



age	.3829546	1.058394	0.36	0.718	-1.71612	2.482029
male	6.744858	2.654087	2.54	0.013	1.481102	12.00861
l3_avg_mark	1.372699	.1429272	9.60	0.000	1.089236	1.656161
absent_hours	-1.708302	.5178745	-3.30	0.001	-2.735384	-.6812203
_cons	-25.95203	25.79028	-1.01	0.317	-77.10097	25.1969

Table 4. OLS regression results

Mean variance inflation factor (VIF) is 1.25 less than 10, which we can conclude that there is some level of multicollinearity among variables, but it does not affect our estimates much. So we can safely ignore multicollinearity problem here.

Table 5. Test for multicollinearity

Variable	VIF	1/VIF
absent_hours	1.37	0.730401
male	1.26	0.791001
l3_avg_mark	1.21	0.829210
age	1.17	0.853603
Mean VIF	1.25	



Table 6. Test for Heterocedasticity

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity	
Ho: Constant variance	
Variables: fitted values of cige_module_mark	
chi2(1)	= 4.69
Prob > chi2	= 0.0304

Breusch-Pagan test results show that variances suffer from heteroscedasticity problem, in favour of the alternative hypothesis implying presence of heteroskedasticity. Thus, we employ WLS to correct this issue using age variable as weight.

Autocorrelation problem may arise in time series data, and we are using, fortunately, cross-sectional data for our analysis.

Table 7. WLS results

Source	SS	df	MS	Number of		
				obs	=	108
Model	17854.700	4	4463.67518	F(4, 103)	=	36.81
				Prob > F	=	0
						0.588
Residual	12490.365	103	121.265686	R-squared	=	4
				Adj R-	=	0.572



				squared		4
	30345.066					11.01
Total	4	107	283.598751	Root MSE	=	2

cige_modul~k	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
age	0.3295952	1.205851	0.27	0.785	2.061925	2.721115
male	6.48954	2.468228	2.63	0.01	1.59439	11.38469
l3_avg_mark	1.34441	0.138184	9.73	0	1.07035	1.618467
absent_hours	-1.937419	0.487147	-3.98	0	2.903562	0.9712765
_cons	-22.23681	27.74368	-0.8	0.425	77.25986	32.78623

Based on the WLS results above, we can conclude that overall goodness of fit – F test coefficient – 36.81 shows significance of regression. R-squared value tell us that chosen explanatory variables explain 59% student's final mark of the module.

Being a male student is statistically significant with 95% confidence, which if a student is a male, his mark is 6.48 higher than female students. Proxy for student's ability – level 3 average marks also significant in explaining his final mark from CIGE, that a mark



increase in 13_avg_mark is associated with 1.34 mark increase in final mark of CIGE. Finally, in correspondence with literature, absenteeism is negatively associated with academic performance of a student, which means being one hour absent from the class, final mark may decrease by 1.93 unit.

Conclusion

This study provides strong, clear evidence that missing classes hurts grades, especially in the CIGE module at Westminster International University Tashkent. Using a group of 108 students and standard OLS and WLS regression tests, the data show a steady, negative link between absence and final marks. In fact, for every extra hour a student skips a seminar, their final score drops a predictable amount, even when earlier grades, age, and gender are considered.

These results back up earlier work while showing how the same pattern plays out in WIUTs setting. The analysis also digs into the many reasons students stay away-illness, jobs, family duties, and even disappointment with teaching-so absence comes across as more than simple laziness; it connects to wider social and educational issues.

From this, two clear recommendations follow. One, university leaders should keep updating attendance rules, but do so with an eye on the diverse challenges students face instead of treating absence as a one-size-fits-all problem.



References

- [1] Ahmad, N., Ul-Saufie, A.Z., Mohamed, S.A., Ahmat, H. and Zahari, M.F., 2018. The impact of class absenteeism on student's academic performance using regression models. In: *AIP Conference Proceedings*. pp.1–6.
- [2] Barlow, J. and Fleischer, S., 2011. Student absenteeism: Whose responsibility? *Innovations in Education and Teaching International*, 48(3), pp.227–237.
- [3] Chafloque Céspedes, R., Vara-Horna, A., Lopez-Odar, D., Santi-Huaranca, I., Diaz-Rosillo, A. and Asencios-Gonzalez, Z., 2017. Absenteeism, Presentism and Academic Performance in Students from Peruvian Universities. *Propósitos y Representaciones*, 6(1), pp.109–133.
- [4] Haque, M.E., 2012. Effect of class absenteeism on grade performance: A Probabilistic Neural Net (PNN) based GA trained model. *American Society for Engineering Education*, 2(3), pp.34–56.
- [5] Lukkarinen, A., Koivukangas, P. and Seppälä, T., 2016. Relationship between Class Attendance and Student Performance. *Procedia - Social and Behavioral Sciences*, [online] 228(June), pp.341–347. Available at: <<http://dx.doi.org/10.1016/j.sbspro.2016.07.051>>.
- [6] Marburger, D.R., 2001. Absenteeism and undergraduate exam performance. *Journal of Economic Education*, 32(2), pp.99–109.
- [7] Teixeira, A.A.C., 2016. The impact of class absenteeism on undergraduates' academic performance: evidence from an elite Economics school in Portugal. *Innovations in Education and Teaching International*, 53(2), pp.230–242.