

FACTORS AFFECTING STUDENTS' PERFORMANCE

A Case Of Private Colleges

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Abstract:

Many empirical studies are carried out to explore factors affecting college students' performance. The focus of this research is that student performance in intermediate examination is associated with students' profile consisted of his attitude towards attendance in classes, time allocation for studies, parents' level of income, mother's age and mother's education. The research is based on student profile developed on the bases of information and data collected through survey from students of a group of private colleges. Public sector educational institutions are not the focus of this study.

Introduction

Measuring of academic performance of students is challenging since student performance is product of socio-economic, psychological and environmental factors. For the last 20 years, education in Pakistan is growing as a profitable industry with prime objective of maximizing profit by delivering high quality education that produces well-educated, skilled, mannered students according to needs and requirements of the dynamically growing market. That's why the scope of research is always there to find out what are the factors that affect the performance of the students. There are two groups of students as generally perceived i.e. those who improve and those who don't improve. This study can contribute to find out the factors, which are responsible for student's inelastic behavior towards study along with identifying those factors, which help a student to make progress in his studies. This study focuses on investigating the factors affecting performance of 3rd and 4th year college students equal to European standard K-12 and K-14. A survey was conducted to collect information and responses of students, regarding factors affecting their performance.

Review of Literature

All of the research reviews support the hypothesis that student performance depends on different socio-economic, psychological, environmental factors. The findings of research studies focused that student performance is affected by different factors such as learning abilities because new paradigm about learning assumes that all students can and should learn at higher levels but it should not be considered as constraint because there are other factors like race, gender, sex that can affect student's performance. (Hansen, Joe B.2000). Some of the researchers even tried to explain the link between students achievements, economic circumstances and the risk of becoming a drop-out that proved to be positive (Goldman, N., Haney, W., and Koffler, S., 1988, Pallas, A., Natriello, G.,

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McDill, E., 1989, Levin, H., 1986) B.A Chansarkar and A. Mishaeloudis (2001), explained the effects of age, qualification distance from learning place etc. on student performance. The performance of students on the module is not affected by such factors as age, sex and place of residence but is associated with qualification in quantitative subjects. It is also found that those who live near the university perform better than other students.

Yvonne Beaumont Walters, kola soyibo,(1998) further elaborated that student performance is very much dependent on SEB (socio economic back ground)as per their statement, "High school students' level of performance is with statistically significant differences, linked to their gender, grade level, school location, school type, student type and socio-economic background (SEB)."

Kirby, Winston et al. (2002) focused on student's impatience (his time-discount behavior) that influences his own academic performance.

Goethe found out that weak students do better when grouped with other weak students. (As implied by Zajonc's analysis of older siblings (1976) it shows that students' performance improves if they are with the students of their own kind.

There are often different results by gender, as in Hoxby's K-12 results (2000); Sacerdote (2001) finds that grades are higher when students have unusually academically strong room mates.

The results of Zimmerman (1999, 2001) were somewhat contradictory to Goethe results but again it proved that students performance depends on number of different factors, it says that weak peers might reduce the grades of middling or strong students.

(Alexander, Gur et al. 1974; Fraser, Beamn et al. 1977) explained that some of the practices adopted by college administration in higher education like residential colleges or organized study groups also help to increases performance.

Keeping in view all of the variables discussed by different researchers we have chosen only those variables that are recognizable in Pakistani setting.

The Objective of this Study

During the past several years a number of valuable studies have been added to existing body of knowledge developing various models to asses the student performance how ever most of the studies relied on the advanced developed societies as their setting. No doubt there are slight variations in terms of their database methodological approach and sample selection. Unfortunately it was not possible to use a setting which involves a number of less developed nations for want of necessary data hence as a start we have chosen Pakistan as a surrogate for developing countries.

The contribution of this paper to the literature is twofold. First, the model tested is a new integration of different variables in developing country's setting like Pakistan, i.e. mothers age, mothers education, family income, study hours, class attendance percentage. The second contribution is to demonstrate the impact of these variables on student performance in the same setting.

A major contribution of this study lies in the demonstration of a large impact of the role of mothers on students' performance. This concept not only includes the reliability and consistency of social structure, but also assumes a higher level of involvement of the mothers' in influencing the students. It highlights the strategic role of mothers and their contribution to competitive advantage among students.

Our approach is to focus on what we feel is one of the ultimate goal i.e. student performance. Our view is that by focusing different factors that influence student performance would help us to improve student through managing their profile.

Our suggestion is that the paradigm on student profile for performance, consider the following possibilities. The most important, student may be able to achieve superior performance via personal traits, genetic code or any other such factor even then proper profiling can help us to address different deficiencies.

It is also possible that some of the factors that have received significant attention in the literature will prove to be only weakly related to student performance in this study. However, in the student performance literature, the closest thing to a conceptual framework is the emphasis on combination of different factors that are expected to influence the student performance i.e. nutrition, food tickets, government support for education, room-mates, effort, distance from learning place, age, gender, etc we have chosen our own combination of factors as discussed earlier keeping in view native setting.

In addition, work in this area has the potential to provide important suggestions to improve standard and quality of education and performance of student that is by no means deniable in a developing country like Pakistan.

Methodology

Statistical techniques including regression analysis were used as a methodology. Data collected was primary through a well-defined questionnaire. A sample of private colleges was taken where these variables were recognized and response was clear and understandable. Public sector educational institutions were not the focus of this study. A sample of 300 students was taken from a group of colleges. Students were grouped in a classroom they were briefed clearly about the questionnaire and it took on average half an hour to fill this questionnaire. Selection of students was at random. Out of these students, only those were selected at random who were voluntarily willing to fill the questionnaires

The data was collected using a questionnaire administrated by the teachers of the graduate class in the 5th month of 4th year. The questionnaire dealt mainly with student profile based on his attitude towards study, strictness, attendance, age, previous academic achievements, etc. All 300 questionnaires were filled with the response rate of 100% out of which 75 were females and 225 were males.

The sample age composition was from 18 years to 22 years of age at maximum because Punjab University of Pakistan doesn't allow students over 22 years of age to be admitted in graduate classes.

Hypothesis

To verify these relationships a hypothesis is formed based on student profile developed on the bases of information collected through questionnaire and it is assumed that the student is carrying on his profile as it is

H₀: Student's attitude towards attendance in class, hours spent in study on daily bases after college, students' family income, students' mother's age and mother's education are significantly related with student performance.

The Model

Simple linear regression analysis were used to test the hypothesis

Coefficients are b₁, b₂, b₃, b₄, and b₅

The Data

A student profile was developed on the bases of information and data collected through survey to explain student's attitudes towards explanatory variables. The first variable "attendance in class" explains student's attitude towards class attendance, which reflects his level of interest in learning. Student's attitude towards time management for studies is reflected through the numbers of hours spent in study after college on daily bases, is taken as second variable. Third variable of the study is family income that reflects the comforts and facilities available for study. The fourth and fifth variables are mother's age and mother's education respectively assuming that in Pakistan's society mothers play a vital role at home and regarding student's performance because of guidance and control. It is observed while interviewing that father remain absent from home due to their job hours so they play a minor role regarding the student performance in Pakistani setting.

Student performance in intermediate examination is taken as dependent variables and rest of the variables, which construct student profile, are taken as independent variables.

This table explains expected relation of dependent variables these expected relations are also myths pervading in Pakistani society so the results of this study are to accept or rejects these myths. The table explains student performance due to student's attitude towards studies based on student's profile developed on the bases of information and data collected. It is assumed that student is still carrying his profile as it is.

Table 1: Expected Relations with Dependent Variable

Variable	Expected relationship	Explanation
Attendance in class	Positive	A regular student is more serious in studies
Family income	Positive	It is assumed affluence gives more facilities to learn
Study hours per day after college	Positive	It is assumed that more study hours results in good grade/ division/ performance
Mother's age	Negative	More age means less control on children

Mother's education	Positive	Educated mothers help the children to improve
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Exogenous (independent) variables

ATT= Attendance %age, it represents how many classes student attends in a week and that shows seriousness and attitude towards studies

SH= Study hours, it represents how many hours a student spends on study after attending the class in college again it shows how much serious the student takes the studies

FI =Family income, it represents the level of affluence of the student, how much facilities, comforts the student can acquire.

ME=Mothers age, it shows the control of the mother because in Pakistani setting the role of the mother is to stay at home and look after the home, kids so our perception is that aged mothers are with lesser control as compared to younger mothers

ME= Mothers education, similarly if mothers are educated then they can contribute to improve the performance of the students because they have to stay at home

Endogenous (dependent) variables

Y = student's performance

The results of intermediate examination are taken as standard of student performance.

$$Y = a + b_1ATT + b_2SH + b_3FI + b_4MA + b_5ME + U$$

Data Measurement

We measured student performance by developing a student profile using all of the independent variable. All of these variables explain the attitude of the student towards studies and it is assumed that the student carry his or her profile as it is, the student grows keeping the same profile or attitude towards the study

We are trying to correlate the students' profile with his academic achievement in intermediate class or one can say that the students' results what ever they may be, in intermediate examination or k12 as per European standards are the results of the profile he or she keeps. Although the questionnaire was open ended but later data collected was converted on 5-point Likert scale due to different types of answers for convenience in computation

Mothers' age were measured like below 35 years of age is considered as young 35years to less then 40years as middle aged, 40years to less then 45years some what aged, 45years to less then 50years as aged and above 50years of age is considered as very aged keeping in view the culture and customs of early marriages in a developing country like Pakistan.

Similarly mothers education was asked as, not educated, can read n write up to 08 years of education, some what educated up to 12 years of education, educated up to 14 years of education and highly educated up to 16 years of education because in Pakistan PhDs are not as common as in developed countries so masters degree is considered as highly educated.

Family income were asked per annum in five brackets like below 10,000 as very poor, 10,000 to 20,000 as poor, third bracket were above 20,000 to 30,000 as middle income class, fourth bracket were above 30,000 to 40,000 as above middle class and fifth bracket were above 40,000 as rich class.

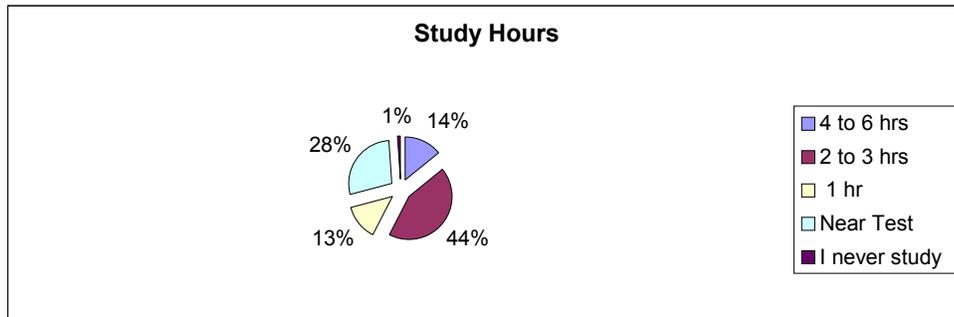
Hours spent on studies after attending the college were asked in five brackets, 1st was "I never study after attending the college", 2nd was "I study only when there are exams or test after attending the college", 3rd was "yes I study" if student is spending one hour on studies after attending the college, 4th was "I am hard working" if student is spending two to three hours after attending the college and 5th was "I am very hard working" if student is spending four to six hours after attending the college.

Attendance percentage was collected from college authorities and measured as ... highly irregular if it is less then 75%
Irregular if it is 75% to less then 80%
Somewhat regular if it is 80% to less then 85%
Regular if it is 85% to less then 90% and
Highly regular if it is above 90%

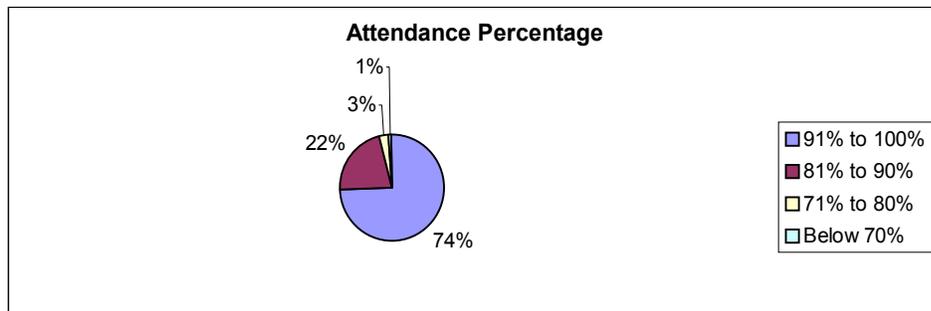
Intermediate results were collected from college authorities and measured as If student has claimed less then 40% it is taken as bad performance, poor performance if marks are 40% to less then 50%, average performance if marks are 50% to less then 60%, good performance if marks are 60% to less then 70% and excellent performance if marks are 70% and above. In Pakistan examination is conducted on annual bases (marks are categorized in 1st division, 2nd division and 3rd division) and keeping in view other examination standards we cannot go for European grading standards.

Overview of Data Collected

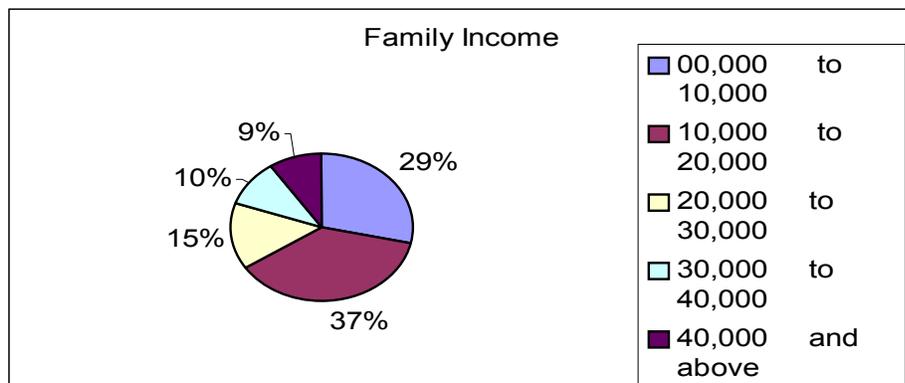
Student's attitude towards time allocation for study shows that 44% of the sample spends 2 to 3 hours in study on daily bases while 28% of the sample studies near exam or test, otherwise this group of students is indifferent to studies which show that a proper schedule of tests and exam can keep students on track.



Students attitude towards attendance in class is reflected through the this pie chart which shows that 74% of the students maintain their attendance from 91% to 100% and 23% from 81% to 90%.



Student's family income data shows that most belong to middle class family with 29% earning 10,000 and 37% from 10,000 to 20,000 rupees per month that makes it 66% of the total sample



RESULTS

We mostly relied on multiple regression technique for data analysis because of the multivariate relationship of our model.

Table 2: Results of Regression Analysis

Summary Output of Regression Analysis

<i>Regression Statistics</i>			
Multiple R	0.72139		
R Square	0.520403		
Adjusted R Square	0.400504		
Standard Error	0.084872		
<i>F Stat</i>	4.340334		
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>
Intercept	-0.25313	0.361194	-0.70081
Attendance average	1.026912	0.335486	3.060963
Study hours	-0.00209	0.001226	-1.70222
Family income	-5.8E-07	1.37E-06	-0.42256
Mother Age	-0.00453	0.002895	-1.5643
Mother Education	0.012193	0.003649	3.341809

The R square value is .24, that proves that student performance is the product of many socio economic and other factors as we build our arguments in literature review which means five of the variables together can explain 24% of the performance of student; rest of 76% is explained by other factors not mentioned in our regression model.

Comparison of Expected results and Result of the STUDY

Variable	Expected relationship	Explanation	Results of study
Attendance in class	Positive	A regular student is more serious in studies	Positive
Family income	Positive	It is assumed affluence gives more facilities to learn	Negative
Study hours per day after college	Positive	It is assumed that more study hours results in good grade/division/performance	Negative
Mother's age	Negative	More age means less control on children	Negative
Mother's education	Positive	Educated mothers help the children to improve	Positive

Discussion

The objective of this study was to quantify the relationship between the different factors that are considered responsible of affecting the students' performance along with providing base for further research regarding student performance.

Selecting these combination of variables do have some objectivity because in a setting like Pakistan it is the need of time to highlight the role of the half of the population, like any other developing country in Pakistan Fathers usually remain absent from home due to their job hours and women are still considered of less importance, less influential and with minimum role, our research have shown that empowerment to mothers on different fronts can lead to better educated society those students are performing well who are with educated mothers as compared to those who are with illiterate mothers. As It was assumed that the relationship between dependent variable and student mother's education are positively related, this relation is accepted by the coefficient value 0.39735317 and positive highly significant t-value 2.315477266 as it was assumed that educated mothers can help their children to improve and can keep proper check on their activities.

Mothers' age also appeared to be important factor young mothers can easily handle their children as compared to aged mothers. As it was expected because of prevailed myth that the relationship between dependent variable and student's mother age is negatively related it is proved by the coefficient value -0.134639006 and negative insignificant t-value -0.826250959 because the aged mothers have less control over their children that affects the student's performance

It was expected that the relationship between dependent variable and student attitude towards attendance is positive because regularity shows the effort and seriousness of student about his or her studies. This relation is proved by the coefficient value 0.372871617 and with significant t-value 1.28825936 in our analysis, which reflects that regularity in college, does contribute in student's performance

It is believed that the relationship between dependent variable and student family income is positive because money can buy you all the comforts that you need to concentrate on your studies but the result could not prove this relation because the coefficient value -0.048344111 and negative insignificant t-value -0.338615111 shows there is inverse relation. It means students belonging to more prosperous/affluent family do not give proper weight to studies although this value is very small but still it reflects the insignificance of affluence i.e. affluence can not make a student serious about his studies or if a student wants to study then affluence is not a prerequisite. but still it requires more research to explain this phenomenon.

It is still believed strongly that the relationship between dependent variable and student attitude towards time allocation for study per day after college are positively related but the result could not prove this relation because the coefficient value -0.007522501 and negative insignificant t-value -0.046346612 show there is a negative relation. It means more study hours are not significant as far as student performance is concerned. It may depend on intelligence level, intellect, memory or method of learning of the student although this value is very small yet it reflects the effect of personal characteristics of student. Further research is required to explore this relation.

NOTE:

Regression effect can affect on extremes, resulting in exaggerated gains for low achieving students and artificially suppressed gains for high achieving students. Students who score near the lower end of a score distribution may be assumed to have more negative measurement error in their scores than those who score near the middle of the distribution. Conversely, those who score near the upper end of the distribution may be expected to have a disproportionate share of positive measurement error in their scores. On a subsequent testing the redistribution of random error will have the effect of

moving the means of each of the groups closer to the mean of the general population from which they are drawn (Talmadge, 1976)

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