

**PUBLIC VS PRIVATE SCHOOLS: ANALYSING STUDENTS’  
PERFORMANCE IN DISTRICT MANSEHRA**



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**CERTIFICATE**

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## **DEDICATION**

I want to dedicate this thesis to my parents who have always been a source of encouragement and inspiration to me throughout my life. I also want to dedicate this research work to the people of district Mansehra.

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## ACRONYMS

EFA	education For All.
GDP	Gross Domestic Product.
FY	Fiscal Year.
KPK	Khyber Pakhtunkhwa.
UNDP	United Nation Development Program.
NGO	Non-Governmental Organisations.
ASER	Annual Status of Education Report.
PTC	Primary Teaching Certificate.
NTS	National Testing Service.

## **Abstract**

Government of Khyber Pakhtunkhwa have made extensive reforms in education sector of the province which results in improvement of public schools quality as well as parents perception against public schools in the province. These reforms resultantly helped in improvement of overall education sector in the province. According to a “Daily times” newspaper report, published on June 6<sup>th</sup>, 2017, around 151,000 students have been shifted to public school from private school in 2017. This amount was 34,000 in 2016. This research is conducted in district Mansehra to analyse students’ performance, who are currently enrolled in public schools. These includes students who have shifted from private schools to public schools as well as students who are enrolled in public schools from the start of their studies.

Students were divided into two groups. Controlled group and experimental group. Controlled groups include students who have been studying in public schools from the start of their studies while experimental group include students who have shifted from private to public schools after completing their primary education and now currently enrolled in public schools. Students’ performance were analysed by recording students grades in previous classes as well as by taking small test consisting of basic conceptual question in mathematics, English, science and general knowledge.

Researcher purpose was to analyse whether the students’ performance has improved, declined or remain same after shifting to public schools. This study found that students’ performance have remain same or some of the students’ performance have been improved also. Which shows that public school are performing in competition to private schools and perception that private schools are performing better that public schools are no longer exist in rural areas of district Mansehra.

# Chapter 1

## 1. Introduction

Education is considered a significant determinant of economic and social development of a nation. Human resource quality is highly dependent on quality of education. Primary education is the foundation, on which future of society, education and human capital stands. This provide child with the basic insights and necessary tools to proceed further in life (Ayesha, 2016).

Evidence suggests that there is a strong causal impact of education, and training on earnings. This is applicable and provide benefits at both, individual and social, levels. Because what is good for individual is good for society (Wilson and Briscoe, 2004). Tare (2015) defines human capital as a collection of resources, which includes skills, knowledge, talents, abilities, training, experience, intelligence and judgments which are possessed individually or collectively by a society. This defines the total capacity of people. Valuable human capital in a society can be used to accomplish the goal of state or a nation.

The EFA global monitoring report (2015) recognises that formal schooling is one of the most important contributor to individual skill development and human capital. The evidence suggested that distribution of personal income is strongly related to education. More schooling means high lifetime incomes, which in essence means overall growth and development of a society.

According to Ministry of Education, Pakistan spending on education has increased to 2.5 percent of GDP in 2016 from 1.9% in 2013 (Government of Pakistan 2016). According to Article 25-A of constitution of Pakistan 1973, it is mentioned that provision of free and compulsory education to the children of age up to sixteen years is the responsibility of state. So after 18<sup>th</sup> amendment, providing free education up to matriculation level is a provincial government obligation in Pakistan.

Haq (2017) points out that literacy rate in Pakistan remained 58% in FY16-17, which shows 2% decrease from previous year. This statement is also revealed by Economic Survey of Pakistan (2016-17). The decline has been witnessed in all provinces of Pakistan except KPK, it remained stagnant over there from past three years. In KPK, literacy count is 72% in case of males and 36% for females. In rural areas, percentage for males is 70 and for female is 33. While in urban areas, it is 77% for males and 52% for female.

In developing countries, public sector alone cannot meet the need of quality education for the rapidly growing population, including Pakistan with a population growth rate of 2.7% which is the highest in the region (Government of Pakistan 2010-11). After the decentralization of private schools in Pakistan in 1979, private sector share has been increased in terms of number of schools and in term of students' enrolment (Khwaja *et al.*, 2002).

Program on the Global Demography of Aging (2013) discussed that private schooling is now an important and major phenomenon in Pakistan, enrolling nearly one-third of all students, at both the primary and secondary levels. These schools include High Level Schools or called elite schools catering high income segment of the society, Middle Level Private Schools or more affordable school serving the middle income class of society and then Low Level Schools, also called low-cost private schools catering the families with low income. Progression of such private schools, particularly low level is important in Punjab and Khyber Pakhtunkhwa.

United Nation Development Program (2012) highlighted that the poor quality of education in public school is the reason of growth in private education schools. Quality differentials in public and private schools is real or perceived, that private schools are performing better, caused the private schools growth. As education is a basic right, it's the responsibility of the state to provide education to all children with-in the state with determined set of standards.

Choosing among public schools and private schools is a tough choice for parents. This is hard choice as public schools offer free education along with books and other incentives, which parents are actually funding through taxes. While perception exists that private institutes offers good quality of education than government schools. There is a need to compare the effectiveness/quality of education of the private and /public schools that in which school type student is performing better and also the factors which are influencing the efficiency of students. Present study is conducted to analyse the performance of students in public and private sector of rural areas of district Mansehra. According to census conducted in 2017, total population of district Mansehra is 1556460. Rural population of district Mansehra is 1411605, while population in urban area is 144855.

The study is conducted to analyse the performance of students in public and private schools by making two groups, treatment group in comparison of controlled group (as mentioned in research design and methodology) that whether the performance of treatment group students improved, deteriorated or remained the same as compared to previous result, or the student of controlled group are performing better than treatment group.

Target population will be students of grade 7 in public schools. Researchers will make two groups classified as treatment group/ experimental group and the other will be controlled or comparison group. Treatment group will comprise of those students, who shifted from private to public after completing primary level. Controlled group includes the students enrolled in public schools from the beginning of their studies. Researchers will test the research question by analysing past result (of grade 5<sup>th</sup> and 6<sup>th</sup>) of student as well as by taking small test.

### **1.1 Research Question(s)**

The research question of the study is as follows:

- Is there any difference in educational performance of public and private school students of rural areas of district Mansehra?

Above question is tested by targeting students who completed their primary education at primary level and then shifted to public schools and also those students who are enrolled in public schools from the beginning of their studies. Researcher will divide students into two groups, treatment group and controlled group mentioned in methodology.

## **1.2 Contribution of Study**

This research is conducted to find out that the performance of students who shifted from private to public schools ( as this shift exist in KPK) that their performance is increased, remain same or decline as compared to their performance in private schools. General perception is that private schools are performing better than government schools, this study will help to find out the existing situation and also help decision makers to regulate the system and the provision of quality education which help students to improve their performance. There are number of private schools which are not registered, study will help the administration to see the current situation of their area and will help them to make different measures for improving the student performances in schools. This study will portray the overall current educational situation of rural areas of district Mansehra and will help decision makers to take decisions for improvement.

Reason behind choosing this research topic is as due to extensive educational reforms in KPK, students shifted from private schools to public school in recent years. The study is conducted to analyse students' performance after shifting their school in district Mansehra.. According to my knowledge, there is no scientific study which has analysed and explored the performance of private school students in rural areas. The researcher main contribution is to analyse student performance in public schools who have shifted from private schools in rural areas of district Mansehra as these areas are not addressed and derive clear estimates while focusing on two methodologies (mentioned above as well as in research design and

methodology section). One is analysing students past records and other is by taking small test from students.

## Chapter 2

### Literature Review

Pakistan education system is inheritance of British rule in the subcontinent. Both public and private sectors were providing education at the time of independence (1947). Educational institutions at the time of independence were classified into two categories: the one is provincial government or local government managed public schools and the other is private schools managed by missionaries/ charities (Burki, 1986).

Aslam (2009) highlighted the public and private school structure in Pakistan. The study argues that mostly government schools function under weak controlling and monitoring environment. Public schools provide free education until primary or insignificant fee for middle and matric. Public schools are mostly single-sex (boys or girls) after primary schooling. Co-education exists up to primary level. He described that private schools are managed and owned by private individual, or by non-governmental organisations (NGOs), trusts or other forms of management. Mostly these private schools are profit oriented. Even though private schools are required to register themselves with the education department of their respective province, but still large number of such schools fail to ensure this. This process of registration allows the students to sit in the public examination at high or higher level to get degree. However, those schools that do not register, send their pupils to public examination as a “private” candidates and by not getting registered private schools avoid large cost like taxation. This is a reason why actual number of private school remains uncertain through government statistics. Furthermore, this leniency in recognition and registration encourage private schools to operate in very relax and weak regulatory environments. This has major consequences for the quality of schooling provided.

In developing countries, over the past few years, low cost private schools have increased in number (Tooley *et al.*, 2008). It is not easy to get reliable data on terrestrial



coverage of such school. Most of these schools are not registered or not recognised by the government (Lewin, 2007; Tooley *et al.*, 2011).

It has been claimed that there are generally two types of private schools in Pakistan. These include high quality, elite based schools that are only accessible to elites. The other type is low cost schools used by a middle or poor section of the population mostly in rural areas of Pakistan. Mostly such private schools are small primary schools and are self-owned, mostly having untrained teachers. 95% teachers in private schools of rural areas are secondary school passed (10 years of education). While student teacher ratio in such schools is low. It is also discussed that 64% of the schools among them are registered (Khwaja *et al.*, 2002).

Private schools predictably enrol more than 50 percent of children in Pakistan, about 60 percent in Punjab. There are 173,110 private schools in Pakistan. Out of which 2,380 are in Islamabad; 24,660 in KPK; 5,880 in Balochistan; 32,850 in Sindh; 97,810 in Punjab and 9,450 private schools are working in GB, Azad Kashmir and other areas of Pakistan. Approximately 15 lac teachers work in these schools. About 23,839,431 students are studying in these private schools (Kashif, 2015).

It is the perception that privately owned schools are more effective and offer better quality of education than the government schools. This perception exists and formed by some of the English medium private schools and some being affiliated with the international secondary examination board which is supposed to increase the chance of students to get better labour market return later in their lives (Aslam, 2009).

Absence of pressure to improve public schools is because children of elites go to high level private schools. In other words, when children of all bureaucrats, politicians, judges and of all those who are related to decision making class of the country; study in private schools, then why would they be interested in improving the government schooling. High level private schools are only affordable by elite class of the society and these schools are also serving to

fulfil the demand of provision of quality education when government schools failed to do so. The relationship between public and private schools is complex and a review of history suggests the purposeful encouragement of elite education business (such as Roots School System, Lahore Grammar and Beacon house) be existent and work because of political suitability and absolute profit-motive at a time when public schools were dominant (Javed , 2015).

Government of Pakistan view private schools as the institutions that charge high fees, serving the elite class of society and were generally located in urban centres of the country. Private education system in Pakistan is large and fast growing sector, especially in rural areas of the country. Andrabi and other (2006) highlighted in their work that private schools are not only cater students from elite families but also from middle class and poorer families of the society who pay low fees. He reported that around one quarter of secondary school population were in private school and he also pointed out that more than one third of the primary schools population were in such schools. These low cost private schools pay little amount to their teachers as a salary. Teachers in these types of schools were moderately educated and mostly were untrained local women.

In developing countries like Pakistan, private schools do not essentially be elite biased, and they include high as well as low cost private schooling, to cater the poor rural class of the country. There are different characteristics that make private schools more attractive for parents, these includes use of English language as a medium of communication, better test scores, low rates of teachers' absenteeism and also better physical infrastructure (Awan 2015).

An alternative view exist which postulates that increase in private schools brings competition and increase the quality of public schools. Public schools teachers and administration may respond to strong competition by improving the quality of instruction, hence by improving education quality overall (Estevan , 1998).

Abbasi (2012) concluded information of 32 district survey across the country in 2010 by ASER, he concluded that private education sector attracts the demand and bare the minimum that is required. That is the reason private schools have no incentive to develop any further. Government school quality education provision is the bench mark for the private schools, above which private school have no incentive to further improve the quality indicator or improve their facilities. Evidence from the ASER 2010 indicates that other than the toilet and water facilities, private schools have no edge over government schools.

In the same report he claimed that, in case of availability of playgrounds, the number of classrooms, the attendance of teachers and boundary walls, private schools are not only on the equal level but even worse than the public schools in rural areas of some provinces. quality of education system is not only the government schools issue, but this is a problem of whole educational system, he added. There is need to work on improving the quality education in both public owned and privately owned schools and to alter the notion that private schools are always better than government schools. It's the need to improve the quality of public schools and setting standards to regulate the private school (Abbasi, 2012).

If fees of low cost private schools are low, we may concern the quality of education provision received in such schools may poor , he added that parents may not be in a position to evaluate quality education accurately (population with overall low education attainment) and paying too much for the services received. Thus, private schools on the name of low cost may be exploiting the poorer households, due to the provision of low quality of education (Andrabi, 2002).

## **2.1 Other Related Factors Affect Student Performance**

There are other factors which effect student performance and these are discussed as follows:

### **2.1.1 Curriculum**

Curriculum development is a public activity and it is a guide line for a teacher. Curriculum is a basic structure and a design that teacher teaches its students and allows it to be tested. Curriculum development has an overall philosophy and specific objective behind it. Curriculum is a learning tool, has a specific objectives and test tool to measure the extent to which students have gained knowledge.

In Pakistan, curriculum followed at primary school level is out-dated and does not accommodate the need of present age. Current practice is that students needs to memorize and reproduce the content in examination. Best type of parrots are created in Pakistan; means this foster cramming of the content and deprives student from critical thinking, reproduction, investigative thinking and creativeness. Thinking abilities of students cannot be improved using this type of curriculum. It is impractical and useless (Hoodbhoy, 1998).

Pakistani schools have been criticised and blamed for strictness and intolerance. Whenever the changes were proposed for reforming the curriculum, faced resistance. This resistance may not be from organised lobby and may be from the side of politicians who have backed off for fear of negative publicity. There may not be an organized lobby for resistance, but it is clear that mostly, politicians have backed off for fear of negative publicity. These debates blow up after every few years. Most recent was in April 2013, when Punjab government interfered in the fast withdrawal when its new Urdu textbook was blamed of being anti-Islam and anti-Pakistan (Hoodbhoy, 2013).

Working paper presented by PGDA (2013) discussed about curriculum content and the about delivery of this content. Like others, Pakistan need to move to the system that enables students to think critically, that stimulates the abilities of creative thinking and that encourage student to challenge different learning process. Like, student should encourage to apply science, maths and logic to real world phenomenon. One possible way to deal with the cramming is to link

testing with curriculum and not just to the specific text books. Other way is to improve teacher quality by training and introducing them with the advanced teaching techniques.

### **2.1.2 Professional Development and Faculty related Factors**

Teaching is a proficient activity. Changes are occurring on a continuous around the world and in the societies. It is need of the time that teachers must be well informed with the latest knowledge, theories and research (Siddique, 1990). Teachers who procure the latest techniques, information based knowledge and improve their skill in accordance to that, can teach effectively (Farooq, 1990).

During teaching process, teachers may face many problems due to lack of learning and teaching aids in school. Teachers are required to cover the syllabus within the given period of the year. Physical development of students affect because of non-availability of playground facilities in low cost private or some government schools. This create more problem for teachers as they cannot provide wider opportunities to students for development and learning. In these conditions teachers fail to create meaningful learning environment in schools (Hussain, 2001).

Teachers can play a vibrant role in effective schooling. Teacher personal and professional development has a direct impact on students' outcome/ achievement. Teacher education and quality training in rural areas of Pakistan is obsolete and inefficient for class room teaching. Report on "Factors influencing school effectiveness in Pakistan" (2010) claimed that basic education and training duration of teachers, both are unsatisfactory. Pakistan needs to raise the quality of education and its effectiveness, one possible way is by increasing teachers training durations and their basic education requirement needs to be increased from 10 years. It is mentioned in this report that private teachers are paid with very small amount and usually do not have a promising career ladder. Therefore the profession fails to fascinate the best talent (Rehmani, 2010).

Teacher absenteeism rate is low in private schools as related to public schools. In private schools, wage of teachers are closely associated to student out comes, while in government schools it is not like so. Teachers are mostly working on daily wages and are less likely to be absent in private schools. Private schools teachers are under pressure to meet the result consequences. While there is a job security in public schools, so the differential incentive in private versus public schools may be a factor that explains the better performance of private schools as compared to public schools (Awan, 2015).

Person has job security once he get a job as a government school teacher. They then less bother about the performance of the students that may cause loss of job in case of private teacher. As private schools teachers usually do not have permanent jobs, so they have a fear to lose job if not performed well. In rural areas, mostly the fresh intermediate pass outs are appointed as a teachers in private schools at low pay. Teacher training concept rarely exist. Teachers at private schools can easily be terminated if they are not showing results and obedience toward the administration or management. Job insecurity in a private schools is a reason that teachers try to perform (Awan, 2015).

Economic returns to teachers of public schools and private school teachers varies significantly across the sector. Average wage of private school teacher is Rs. 1028 as compared to average wage of Rs. 5620 of public school teacher. it is also necessary to mention here that in public schools, salaries of teachers are heavily influenced by training of a teacher and not gender bias. Female teachers and male teachers on same grades earning the same or a slightly different. In case of private schools, it is opposite to public schools, and salaries responded to gender or education, rather than on teacher training. Male teachers have more salaries than females. In the public schools, Primary Teaching Certificate (PTC) teachers earned 75% more than those without it. While in PTC teachers earned only 3% more than those without it. It is also discussed in the article that around 92% of private schools are co-educational, and this is

a dominant acceptance in different provinces of Pakistan that girls should have single- sex school (Amjad; MacLeod, 2012).

### **2.1.3 School Related Factors**

Choice of public vs private schooling is affected by the cost of schooling/ educational cost. This determinant is an important factor in deciding the type of schooling (public or private schooling). Although, the expenditure on educational material, and transport cost has a important share of the overall schooling cost in poor house hold, the opportunity cost of schooling also remain high. Awan in his paper found inverse relation between choice of private schools and school fees (Awan, 2015).

### **2.1.4 Parents' Related Factors**

Parents' education may be a good measure of the home environment's impact on students' achievement. Parental are the first care givers to their kids so their involvement in their child education process is given a high priority. Evidence advocate that parents who are full time employed and still earning low income may have low education. It is also suggested through evidence that parent with high education have better chance to earn well and also educated parents can better care and nourish their child for their hygiene and health due to which child learning abilities and attendance flourish (National Centre for Children in Poverty, 2007).

Turnout of parents in parent's teachers meeting is less than 3% in rural areas of District Mansehra. Parents do not show any concern; once they send their children to school then they do not bother about what their children are doing in schools (Sarfaraz, 2013). Parental decision of school type and enrolment, especially for girls, is mostly depends on the availability of school. There is another factor which result in students' achievement is student attendance. Child later performance depends on how regularly he or she attends school (Lloyd, 2002).

A very important role that parents can play to improve their child education is through attending parent's teachers meeting. When parents show involvement in their children

education then there is chance of student achievements rate may increase. Strong relation exist among students, teachers and parents. Parents and teachers should know that what kind of motivation their child need related to studies. Teachers and parents must know what type of motivation their child needs related to studies. By this students interest may develop and can perform better in studies (Sarfaraz, 2013).

#### **2.1.5 Student Teacher Ratio**

Some of government school have fifty plus students in class, therefore it is difficult for a teacher to pay proper attention to every student. This strength of class create difficulty for student to communicate properly with teachers. While in private schools the situation is little better. He concluded that there are thirty plus students in a class, which is comparatively a better situation and a teacher can pay attention to students properly (Awan, 2015).

### **2.2 Education System in Pakistan**

Broadly speaking, two types of schooling system (public/government and private) exist in Pakistan. Both type of system comprises of primary (five years of education), three years of secondary school followed by two years of high secondary schooling/ matric and after that, two years of intermediate/ higher secondary schooling (FA/F.Sc or A-levels). Public and private classified education divide students into different groups (Muneer, 2017). In Pakistan, after 18<sup>th</sup> amendment, education system is now decentralised and responsibility of management and delivery has shifted to districts (Devolution Plan 2001).

Education system of Pakistan. After 18<sup>th</sup> amendment, education is devolved to provinces and its provincial subject. Provincial government enjoy autonomy in education sector. Ministry of Education and Training and Standard in Higher Education at federal level coordinate with international development partners and provided a platform to provincial education departments for exchange of information and creating harmony, synergy and synchronization among provinces. In Pakistan, public School sector is the major service



provider consist of 12 years of academia. Starting from basic level, followed by middle and secondary level and followed by higher secondary level. Private school system also exist in Pakistan and cater educational need of about one third enrolled students. Some private schools follow state curricula while some opt for syllabus of Cambridge International Examination. In urban areas, upper middle class children generally attend high level private schools offering Cambridge/ oxford curricula (O and A levels). In addition to these two educational system there also working Deeni-madrassas providing free religious education and these are mostly managed by native communities. These madrassas system are financed through charity and donations. These several system have propagated inequalities and economic stratification in Pakistan. Children majority, residing in rural areas or belongs to low income families attend public schools offering free education but has several issues including quality education, absence of teachers, non-availability of learning material (Farooq, 2005).

## Chapter 3

### Research Design, Data and Empirical Methodology

This section provides research design, theoretical frame work, study area, sampling techniques and also the data analysis.

#### 3.1 Research Design

Study is conducted in rural area of district Mansehra of KPK. Target population is students of grade 7 in public schools. Researchers made two groups classified as treatment group/ experimental group and the other is controlled or comparison group. Treatment group comprises of those students, who shifted from private to public after completing primary level. Controlled group includes the students enrolled in public schools from the beginning of their studies. Researchers test the research question by analysing past result (of grade 5<sup>th</sup> and 6<sup>th</sup>) of student as well as by taking small test based on Mathematics, English, Urdu and general knowledge from students. This is to analyse the performance of treatment group in comparison of controlled group that whether the performance of treatment group students improved, deteriorated or remained the same as compared to previous result, or the student of controlled group are performing better than treatment group.

Questions like past grades in class 5<sup>th</sup>, 6<sup>th</sup> and grades in 7<sup>th</sup> class were asked from students. Dependent variable includes students grades and students performance while independent variables include school controls, parental controls and individual controls which is addressed by asking sub questions like school distance, parents education, parents job, family size, attendance in school, past grades in school and marks obtained in test etc. Test was taken from both controlled and experimental group to analyse and compare students' performance and to compare which students perform better in test, either those who never studied in private school and choose public schools from the very beginning of their studies or those who shifted from

private to public schools after grade 5 or so. Data has been collected from the students of district Mansehra in December 2017.

### **3.1.1 Area of the Study**

The District Mansehra consists of three tehsils, i.e. Mansehra, Balakot and Oghi, which are further divided into 60 Union Councils. Presently District Mansehra has 36.3% literacy rate against 53 % of KPK and 58 % of the country, respectively<sup>1</sup>. According to 2017 census the population of district Mansehra is 1556460 and its area is approximately 4579 Sq. Kms. Rural population of district Mansehra is 1411605, while population in urban areas is 144855.

### **3.2 Sample of the Study**

There are 170 high and high secondary schools among which 120 are public schools, 50 are private and 2 are semi government<sup>2</sup>. According to development statistics of Khyber Pakhtunkhwa (2017), total enrolment at primary level in district Mansehra is 13151, among which boys' enrolment is 7856 while girls' enrolment is 5295.

Selection of school were the middle school or higher schools of rural areas within which we choose grade 7 student who shifted from private to public schools (treatment group) as well as students who studies in public schools from the very beginning of their studies ( control group). Random sampling technique is used. Data was collected back in December 2017.

Along with taking small test and analysing students past results, researchers also collect information from students through questionnaire regarding the reasons he or she has to shift to public school.

Researchers tried to minimize **Sample biasness** as much as possible using random sampling. Research area of study is rural areas, where there is high probability of less difference among families income level, educational background and family awareness related to education importance do not vary much. Reason is, in rural areas of district Mansehra, there is less heterogeneity due to which such differences reduced.

### 3.2.1 Sample Technique

Randomize sampling technique is used followed by cluster sampling/ snow ball sampling. Questionnaires were distributed among students for getting their responses on other variables which may affect students' performance.

Sample size is 105 students who belong to public school and includes students who shifted from private to public school after primary level and those who were public school students from the start of their studies.

### 3.3 Empirical Methodology

Empirically the following research model is estimated using regression analysis:

$$Performance_i = \beta_0 + \beta_1 Student_i + \gamma \sum_{i=1}^n Xi + e_i$$

In the above equation  $Performance_i$  means performance in test and previous grades of student  $i$ , where  $i$  is 1 to  $n$  as discussed above. Researcher analysed students' performance by analysing past record as well as by taking small tests mentioned above.

$Student_i$  defines randomly selected students who studied primary education in private or in public school and now enrolled in public schools.  $\sum_{i=1}^n Xi$  defines other variable affecting students' performance, including school distance, parents education, schools facilities, class strength, practical work after lecture, lecture understanding, school infrastructure, family education, etc.

For data processing and analysis, qualitative methods is applied. Information through questionnaires is recorded on other variables and will be carefully transcribed. Data will be collected from both groups (treatment and controlled group) students of grade 7 of rural area of district Mansehra.

## **Chapter 4**

### **Data and Variables**

This chapter includes data collection process and analysis of data collected. Data is collected on the topic “Student performance analysis” in district Mansehra in December 2017. Data has been gathered through questionnaire, analysing students past grades (grades in grade 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> also). Questionnaire includes questions on different controls including individual controls (in which question like gender, family size, school attendance and study hours after school) then comes parental controls which include mother education, mother job, father education and father job. These also have an impact on student performance. Generally, it is a general perception that literate mothers can help more in their children education. School variables are also included in questionnaire which comprises of questions like school distance from home and how to travel to school (via school van, private vehicle or by walk). Questions like past grades in class 5<sup>th</sup>, 6<sup>th</sup> and grades in 7<sup>th</sup> class were also asked from students. Data is collected from students who study in public schools from the beginning of their education and students who shifted to public school after completion of their primary education. Students were divided into two groups, controlled and experimental group. Controlled group includes students who study in public school from the beginning of their education while experimental group includes students who shifted to government school after completing their primary education at private schools. Test was taken from both controlled and experimental group to analyse and compare students’ performance and to compare which students perform better in test, either those who never studied in private school and choose public schools from the very beginning of their studies or those who shifted from private to public schools after grade 5 or so. Data is collected from 105 students and through randomized sampling technique followed by cluster sampling/ snow ball sampling. Data has been collected from the students of district Mansehra.

Empirically the following research equation is estimated using regression analysis:

$$Performance_i = \beta_0 + \beta_1 Student_i + \gamma \sum_{i=1}^n Xi + e_i$$

In above model *Student<sub>i</sub>* defines randomly selected students who studied primary education in private or in public school and now enrolled in public schools.  $\sum_{i=1}^n Xi$  defines other variable affecting students' performance, including individual controls, parental controls and school controls which further includes school distance, parents education, schools facilities, class strength, family education, etc.

Students' performance is analysed by using past record as well as by taking small tests mentioned above which further analysed using Logit model (for analysing student performance in previous grades) and simple OLS regression (for analysing students performance in test taken). Investigative questions and response of relevant stake holders (students) are calculated and evaluated in percentages graphs (descriptive analysis) using SPSS and some statistical test is also applied including Logit model and simple OLS regression technique using Stata software to see the effect of controls (individual, parental and school) on students' performance.

Questionnaire were distributed among students and their responses are calculated and analysed in percentages and graphs using SPSS. Following are the statistical and graphical representation of analysed data:

**Table A:**

	Have you ever studied in private school	Hours spent on studied after attending school.	My attendance percentage in school	Your grades in class 5th	Grades in class 6th.
Mean	.57	2.59	2.96	2.85	3.06
Std. Deviation	.497	1.230	1.082	.918	.959

According to above mentioned table, 57% of the respondents are those students who shifted from private to public school and currently enrolled in public schools. Maximum of the respondent, according to mean value, spent 2-3 hours on studies after attending school. On average students attendance percentage in school is around 70 to 80 % and their grades in 5<sup>th</sup> and 6<sup>th</sup> were in between 60% and 70%. Detailed analysis of the respondents along with the summary are given as follows;

**Summary of the respondents:**

Table 1 shows that around 57% of the respondents were those who shifted from private to public schools. 43% of the respondents are those who never studied in private schools.

**Table 1: Respondents studied in private school or public school till primary**

**Have you ever studied in private school**

	Frequency	Percent	Valid Percent	Cumulative Percent
NO	45	42.9	42.9	42.9
Yes	60	57.1	57.1	100.0
Total	105	100.0	100.0	

**Figure 1:**



#### 4.1 Individual characteristic

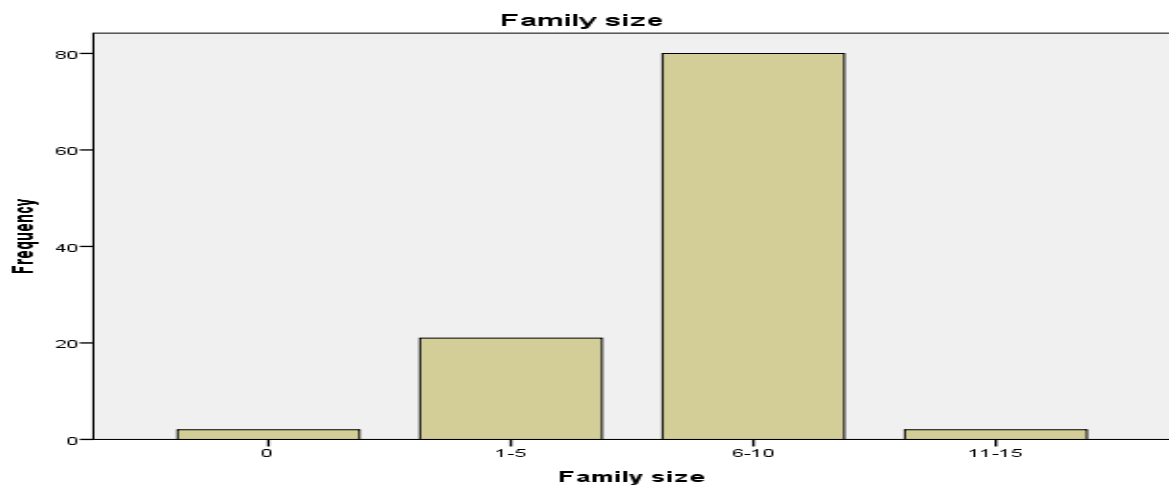
##### Summary of respondents' family Size:

Almost 76% of the respondents have family size of 6 to 10 family members followed with 20% having family size in between 1 to 5 members.

**Table 2: Family Size**

Family size				
	Frequency	Percent	Valid Percent	Cumulative Percent
0	2	1.9	1.9	1.9
1-5	21	20.0	20.0	21.9
6-10	80	76.2	76.2	98.1
11-15	2	1.9	1.9	100.0
Total	105	100.0	100.0	

**Figure 2:**



##### Summary of the respondents hourly time spending on studies after school hours:

Graph below shows that maximum respondent (almost 50%) spend just 1 hours on studies after school hours. 19% of the students are those who spend 2 to 3 hours on studies



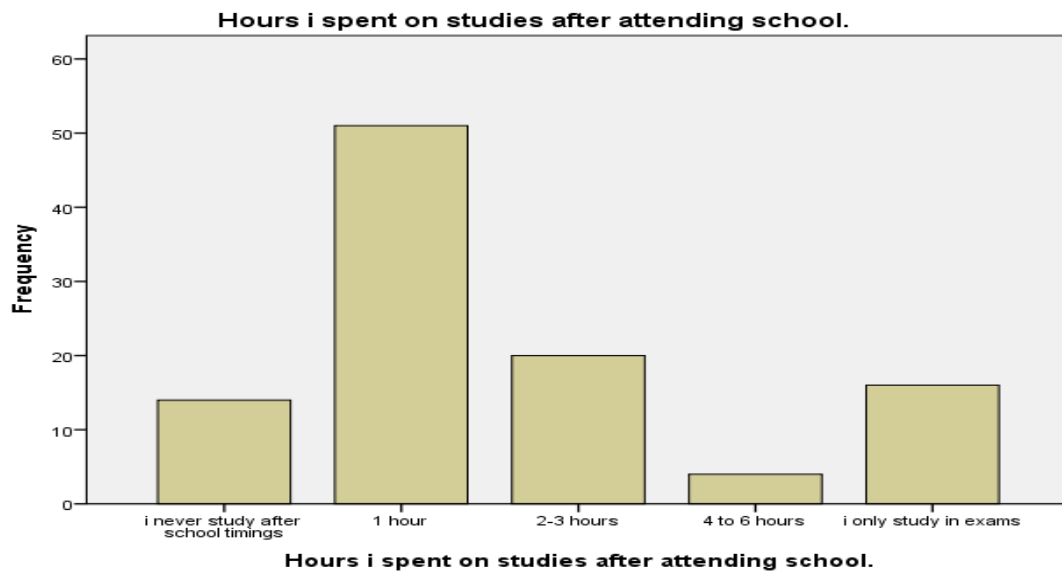
after school hours. Around 13% of responses includes students who never study after school hours and 15% are those who only study in exams.

**Table 3: Respondents spending time on studies after attending school.**

**Hours spend on studies after attending school.**

	Frequency	Percent	Valid Percent	Cumulative Percent
I never study after school timings	14	13.3	13.3	13.3
1 hour	51	48.6	48.6	61.9
2-3 hours	20	19.0	19.0	81.0
4 to 6 hours	4	3.8	3.8	84.8
I only study in exams	16	15.2	15.2	100.0
Total	105	100.0	100.0	

**Figure 3:**



### Summary of respondents' attendance percentage in school

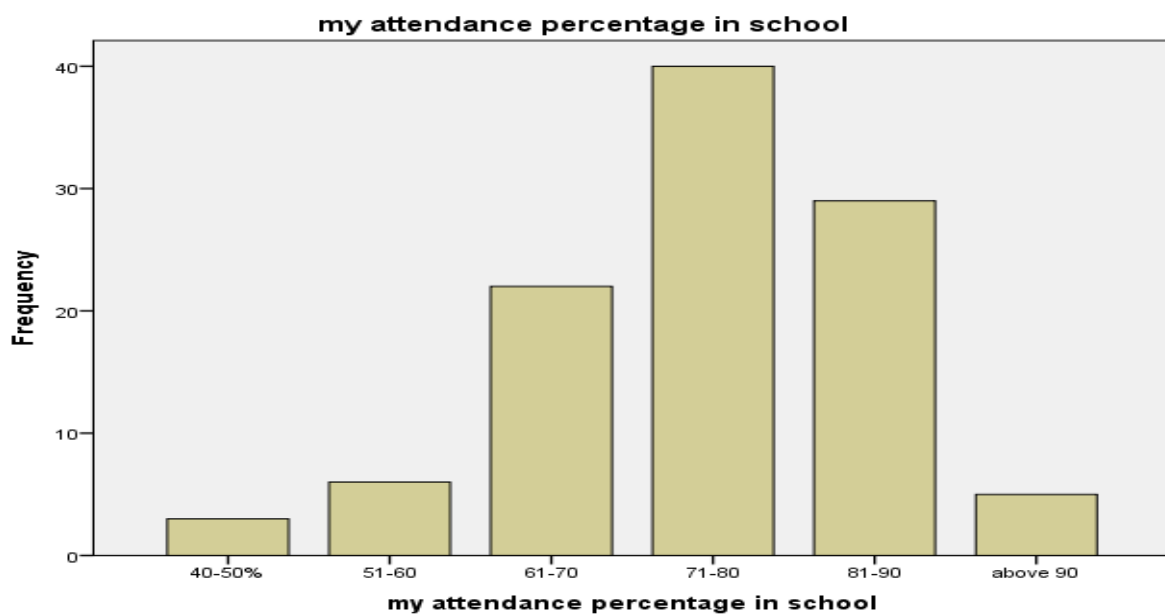
Below table shows that on average, student's attendance percentage at school is around 70 to 80% followed by student's attendance percentage of 81 to 90%. 3% of the respondents includes the students whose attendance percentage is 50% or below 50% in school. 6% of the responses includes students whose attendance percentage lies between 51 to 60%.

**Table 4: Respondents attendance percentage in school**

**Attendance percentage in school**

	Frequency	Percent	Valid Percent	Cumulative Percent
40-50%	3	2.9	2.9	2.9
51-60	6	5.7	5.7	8.6
61-70	22	21.0	21.0	29.5
71-80	40	38.1	38.1	67.6
81-90	29	27.6	27.6	95.2
above 90	5	4.8	4.8	100.0
Total	105	100.0	100.0	

**Figure 4:**



**Summary of the respondents' percentages in grade 5:**

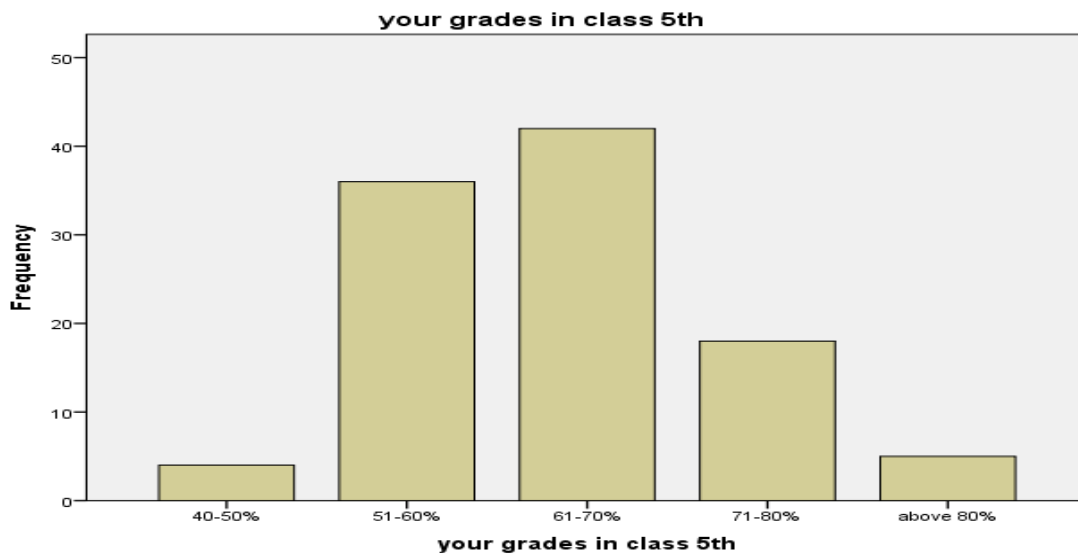
Almost 40% of the respondents acquired 61-70% of marks in grade 5<sup>th</sup>. 35% of the respondents are with 50-60% of the percentage followed by 17% of respondents with percentages lies between 71 to 80% in grade 5<sup>th</sup>.

**Table 5: Respondents grades in class 5<sup>th</sup>.**

**your grades in class 5<sup>th</sup>**

	Frequency	Percent	Valid Percent	Cumulative Percent
40-50%	4	3.8	3.8	3.8
51-60%	36	34.3	34.3	38.1
61-70%	42	40.0	40.0	78.1
71-80%	18	17.1	17.1	95.2
above 80%	5	4.8	4.8	100.0
Total	105	100.0	100.0	

**Figure 5:**



**Summary of respondents' percentages in grade 6<sup>th</sup>:**

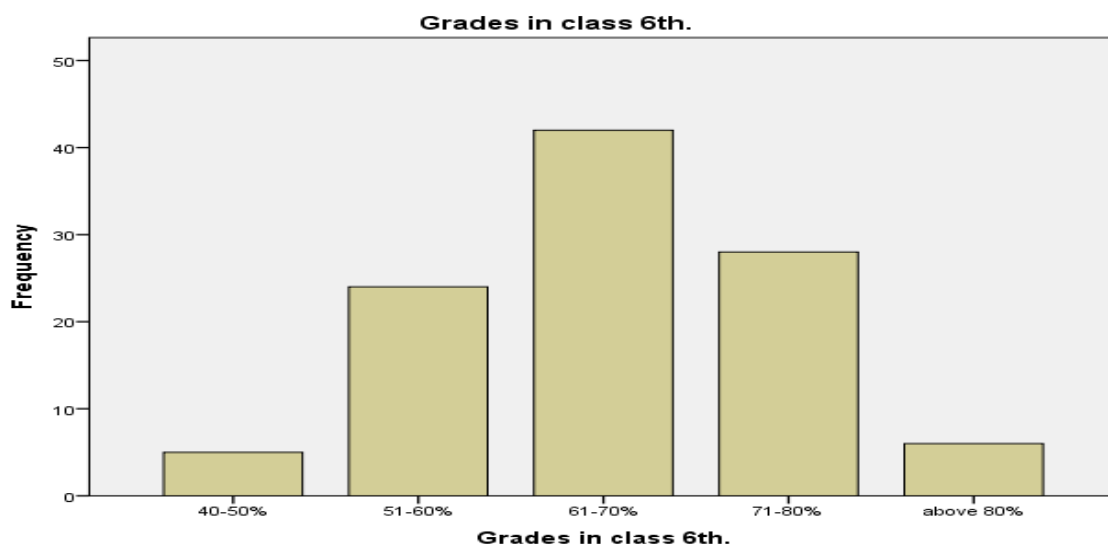
Evaluating below chart, in comparison of grade 5<sup>th</sup> result, there is 2% of increase in the students who scored 61-70% of percentage in grade 6. There is also increase in the number of students who acquired 71-80% in grade six as compared to grade 5. This shows, on average, there is increase in students' performance.

**Table 6: Respondents grades in class 6<sup>th</sup>.**

**Grades in class 6<sup>th</sup>.**

	Frequency	Percent	Valid Percent	Cumulative Percent
40-50%	5	4.8	4.8	4.8
51-60%	24	22.9	22.9	27.6
61-70%	42	40.0	40.0	67.6
71-80%	28	26.7	26.7	94.3
above 80%	6	5.7	5.7	100.0
Total	105	100.0	100.0	

**Figure 6:**



**Summary of the respondents' percentages in grade 7:**

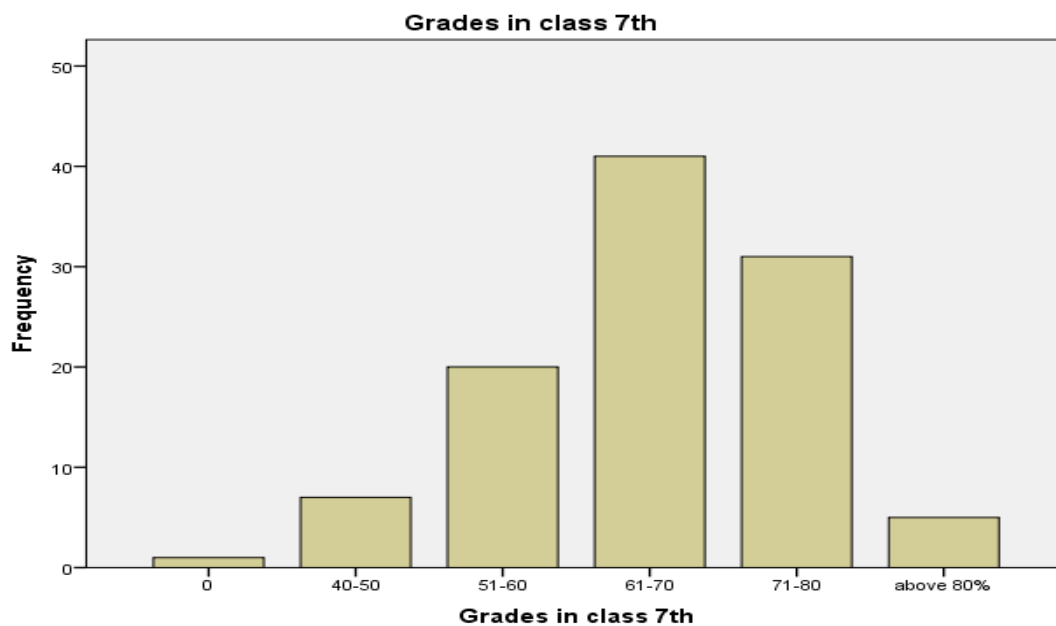
Evaluating below table, there is decrease in students who obtained 61-70% but increase in Percentage of students who obtained 71-80% marks in grade 7<sup>th</sup>. This percentage shows that students are performing better.

**Table 7: Respondents grades in class 7<sup>th</sup>.**

Grades in class 7<sup>th</sup>

	Frequency	Percent	Valid Percent	Cumulative Percent
0	1	1.0	1.0	1.0
40-50	7	6.7	6.7	7.6
51-60	20	19.0	19.0	26.7
61-70	41	39.0	39.0	65.7
71-80	31	29.5	29.5	95.2
above 80%	5	4.8	4.8	100.0
Total	105	100.0	100.0	

**Chart 7:**



## 4.2 School Characteristic

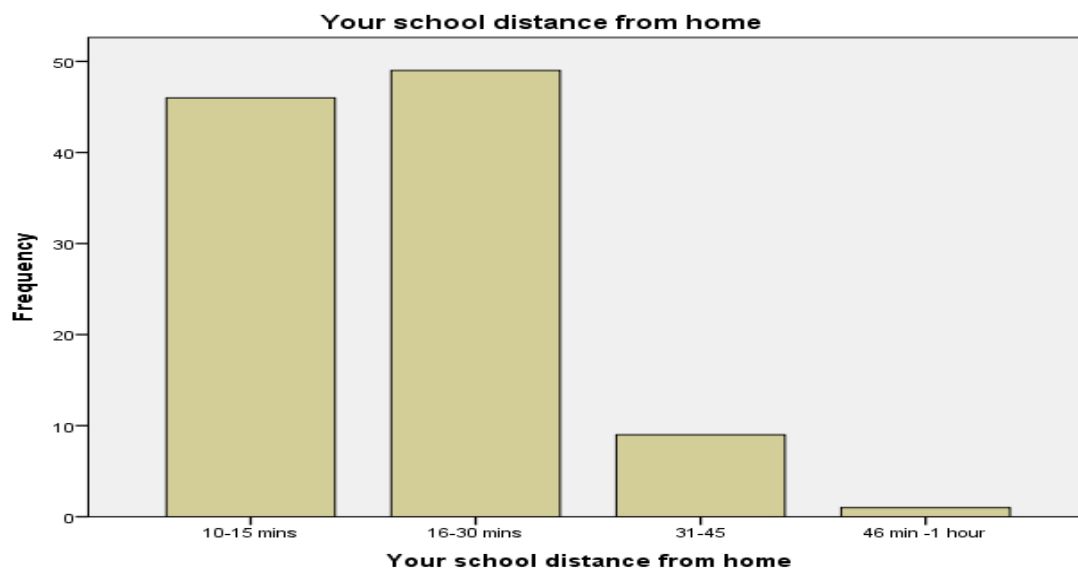
### Summary of respondents school distance from home:

On average school distance from home is 16 to 30 minutes. 47% of the respondents school distance from home is almost 15 to 30 minutes and around 44% of the respondents are living at a distance of 10 to 15 minutes from school.

**Table 8: School distance from home**

Your school distance from home				
	Frequency	Percent	Valid Percent	Cumulative Percent
10-15 mins	46	43.8	43.8	43.8
16-30 mins	49	46.7	46.7	90.5
31-45 mins	9	8.6	8.6	99.0
46 min -1 hour	1	1.0	1.0	100.0
Total	105	100.0	100.0	

**Figure 8:**



### Summary of respondents means of travelling to school:

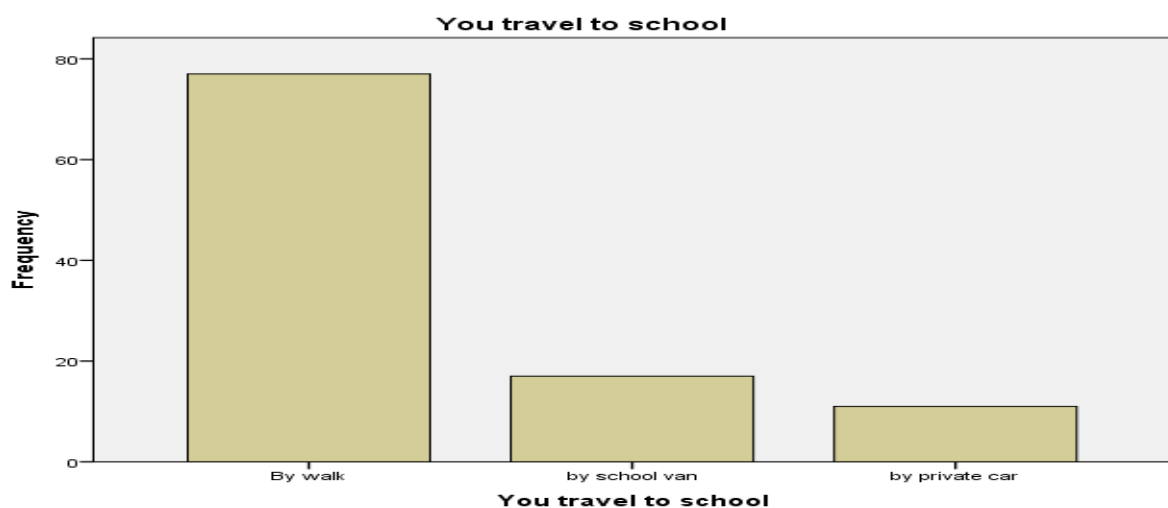
Almost 73% of the respondents travel to school by walk. Means on average students travel to school by walk and distance from school to home on average is 16 to 30 minutes. 16% of the respondents travel to school by school van and 11% of respondents use private vehicles.

**Table 9: Travelling to school**

**You travel to school**

	Frequency	Percent	Valid Percent	Cumulative Percent
By walk	77	73.3	73.3	73.3
by school van	17	16.2	16.2	89.5
by private car	11	10.5	10.5	100.0
Total	105	100.0	100.0	

**Figure 9:**



### 4.3 Parental characteristics

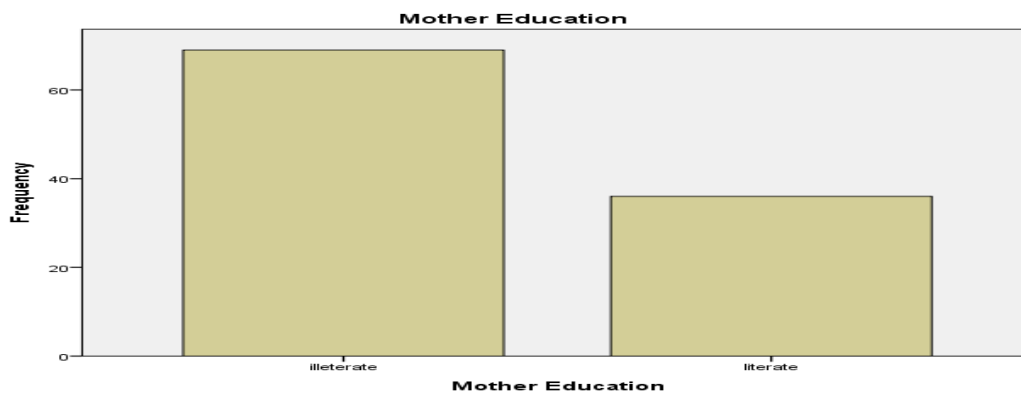
**Summary of respondents' mother education:**

Almost 66% of the respondent includes students whom mothers are illiterate. According to read foundation report, an educated mother expectation towards her child education is high and shows more responsibility. She spend more time on her child school work as compared to illiterate mother<sup>3</sup>.

**Table 10: Respondents mother education**

Mother Education				
	Frequency	Percent	Valid Percent	Cumulative Percent
Illiterate	69	65.7	65.7	65.7
Literate	36	34.3	34.3	100.0
Total	105	100.0	100.0	

**Figure 10:**



**Summary of respondents' father education:**

Evaluating below chart, shows that most of the (31%) students father education is primary, followed with 23% of students father are matric degree holder. 29% of the respondents responded that their fathers are illiterate.

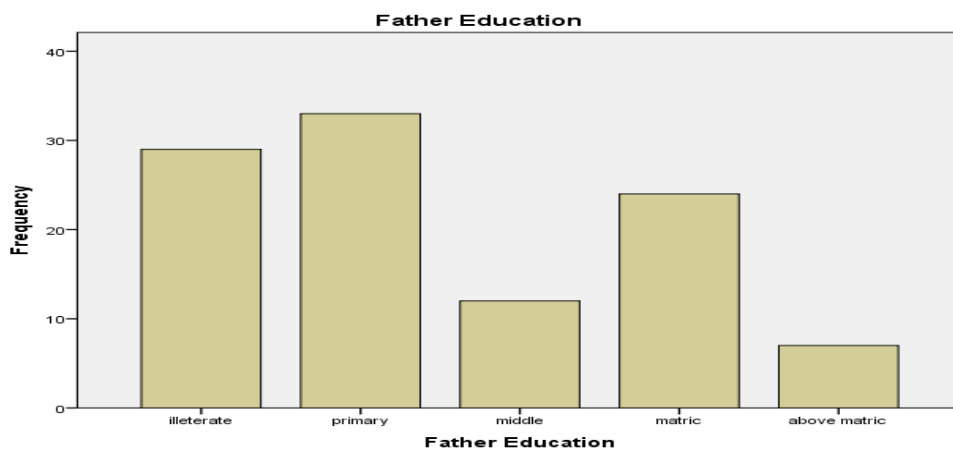
**Table 11: Respondents father education**



**Father Education**

	Frequency	Percent	Valid Percent	Cumulative Percent
Illiterate	29	27.6	27.6	27.6
Primary	33	31.4	31.4	59.0
Middle	12	11.4	11.4	70.5
Matric	24	22.9	22.9	93.3
above matric	7	6.7	6.7	100.0
Total	105	100.0	100.0	

**Figure11:**



**Summary of respondents' mother job:**

Evaluating below table, 99% of the respondents' mothers are house wife and just 1% of the respondents' mother are working women.

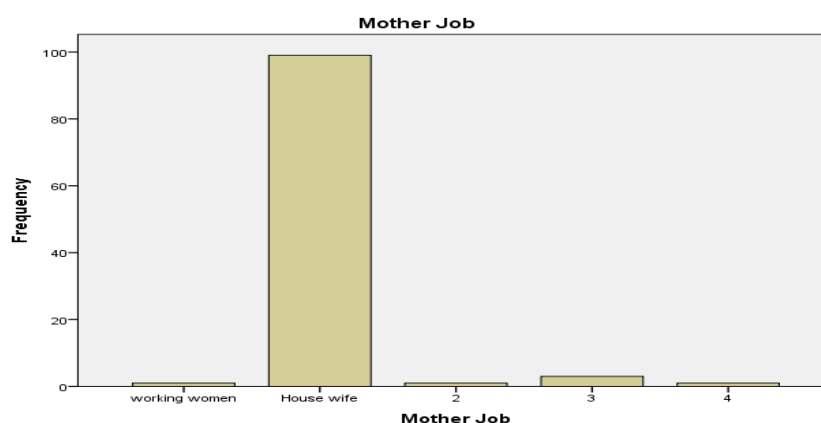
**Table 12: Respondents mother job:**

**Mother Job**

	Frequency	Percent	Valid Percent	Cumulative Percent
working women	1	1.0	1.0	1.0
House wife	99	94.3	94.3	95.2
2	1	1.0	1.0	96.2

3	3	2.9	2.9	99.0
4	1	1.0	1.0	100.0
Total	105	100.0	100.0	

**Figure 12:**



**Summary of respondents’ father job:**

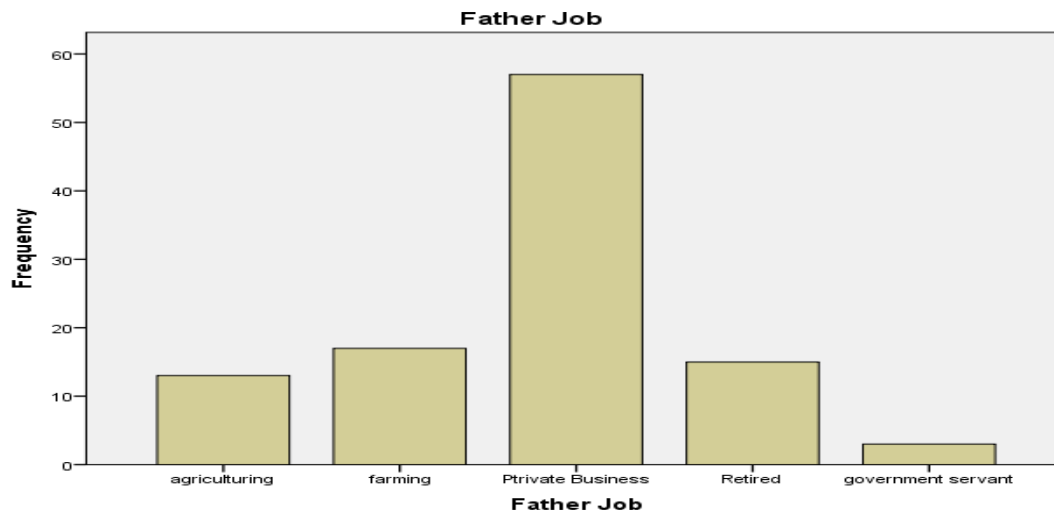
According to data collected, 54% of the respondents’ father job is private business, including private shops, or any other private business. This also includes student father working abroad. 16% of the respondent father mode of earning is through farming followed by 14% of the respondents fathers are retired from government services, this also include retired from armed forces. 12% rely on agriculture as a source of earning.

**Table 13: Respondents father job**

	Frequency	Percent	Valid Percent	Cumulative Percent
Agriculture	13	12.4	12.4	12.4
Farming	17	16.2	16.2	28.6
Private Business	57	54.3	54.3	82.9
Retired	15	14.3	14.3	97.1

Government servant	3	2.9	2.9	100.0
Total	105	100.0	100.0	

**Figure 13:**



#### **4.4 Student performance according to test taken**

Test were taken from students from grade 7. These students include students who shifted from private to public schools after completing their primary education at private school as well as students who studied in public schools from the beginning of their studies. Test covers core subject of students like mathematics, English, science and also include some very basic general knowledge questions to analyse students' performance. Past school performance is also analysed by analysing students result in percentages in past grades including grade 5,6 and 7<sup>th</sup>.

#### **Summary of students marks obtained in English test:**

Test was taken from students of grade 7 (from controlled and experimental group). Test contain basic English grammar questions, like define adjective, use of exclamation marks, use of present and past tense in statement, a short paragraph writing on the topic " I want to be" and "My aim in life" and correction of word in statements. Test was conducted to analysed students

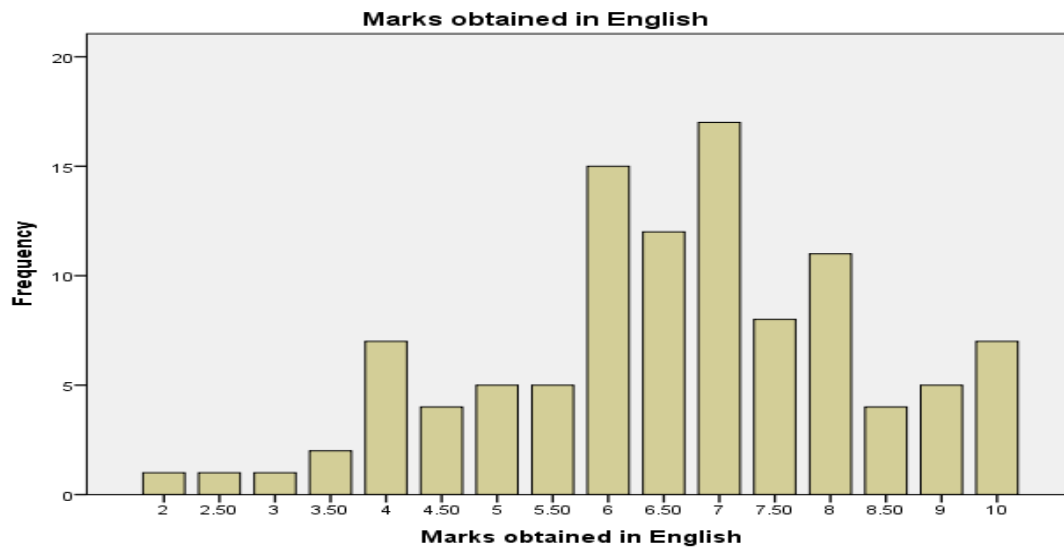
basics English skill of writing, reading and understanding. Results of the test taken are mentioned as follow in which 17% of the respondents score is 7 out of 10 followed by 14% of the respondents scored 6 marks out of 10. 11% of the respondents score is 6.5 and 10% students got 8 marks. Almost 20% of the respondents scored less than 5 or 5 marks. Over all the result is satisfactory because maximum respondents scored more than 50% marks in English test.

**Table 14: respondents obtained marks in English**

**Marks obtained in English**

	Frequency	Percent	Valid Percent	Cumulative Percent
2	1	1.0	1.0	1.0
2.50	1	1.0	1.0	1.9
3	1	1.0	1.0	2.9
3.50	2	1.9	1.9	4.8
4	7	6.7	6.7	11.4
4.50	4	3.8	3.8	15.2
5	5	4.8	4.8	20.0
5.50	5	4.8	4.8	24.8
6	15	14.3	14.3	39.0
6.50	12	11.4	11.4	50.5
7	17	16.2	16.2	66.7
7.50	8	7.6	7.6	74.3
8	11	10.5	10.5	84.8
8.50	4	3.8	3.8	88.6
9	5	4.8	4.8	93.3
10	7	6.7	6.7	100.0
Total	105	100.0	100.0	

**Figure 14**



**Summary of respondents scores in Mathematics test:**

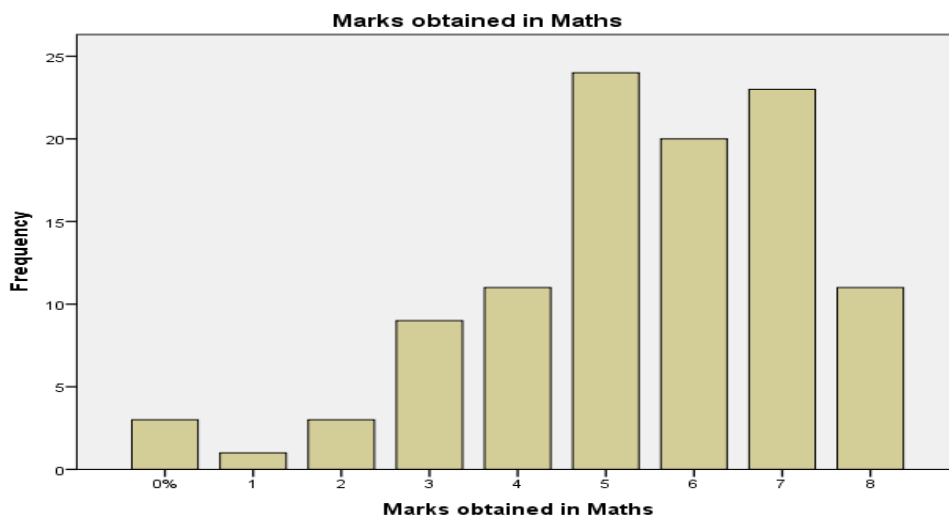
Maths test were based on basic mathematic questions from grade 5 and 6 , include questions like finding percentages, solving fraction, H.C.F and L.C.M , prime factorization and solving basic equation to find X. 23% of the respondents obtained 5 marks out of 8, 22% scored 7 out of 8 and 19% scored 6 marks out of 8. 10.5 % of the respondents obtained 4 and another 10.5% scored 8/8 marks. Respondents who scored less than 50% are around 16%. So overall performance of the respondents in maths test concluded satisfactory. Statistical and graphical representation of the test is given as follows:

**Table 15: Respondents obtained marks in mathematics**

Marks obtained in Maths				
	Frequency	Percent	Valid Percent	Cumulative Percent
0	3	2.9	2.9	2.9
1	1	1.0	1.0	3.8
2	3	2.9	2.9	6.7
3	9	8.6	8.6	15.2
4	11	10.5	10.5	25.7

5	24	22.9	22.9	48.6
6	20	19.0	19.0	67.6
7	23	21.9	21.9	89.5
8	11	10.5	10.5	100.0
Total	105	100.0	100.0	

**Figure 15:**



**Summary of respondents marks in general knowledge:**

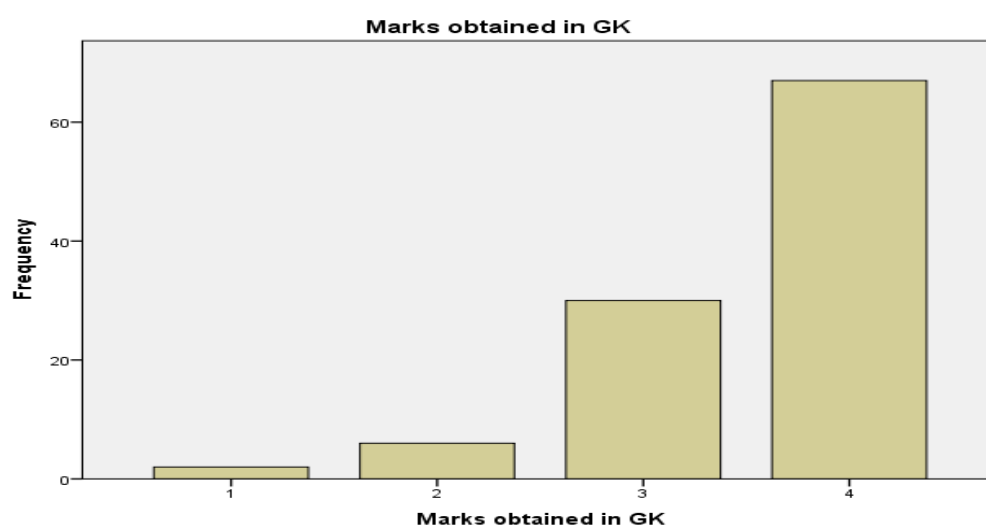
General knowledge portion contain just four very basic questions, which includes the name of current Prime Minister of Pakistan, National animal, biggest province according to area and biggest province of Pakistan according o population. This portion was of total 4 marks and 64% of the respondents scored full marks in this section. 23% obtained 3 marks and 6% 2 marks out of 4. Graphical and statistical representation of respondents score is given as follows:

**Table 16: Respondents obtained marks in general knowledge**

Marks obtained in GK				
	Frequency	Percent	Valid Percent	Cumulative Percent

1	2	1.9	1.9	1.9
2	6	5.7	5.7	7.6
3	30	28.6	28.6	36.2
4	67	63.8	63.8	100.0
Total	105	100.0	100.0	

**Figure 16:**



**Summary of respondents marks in Science Test:**

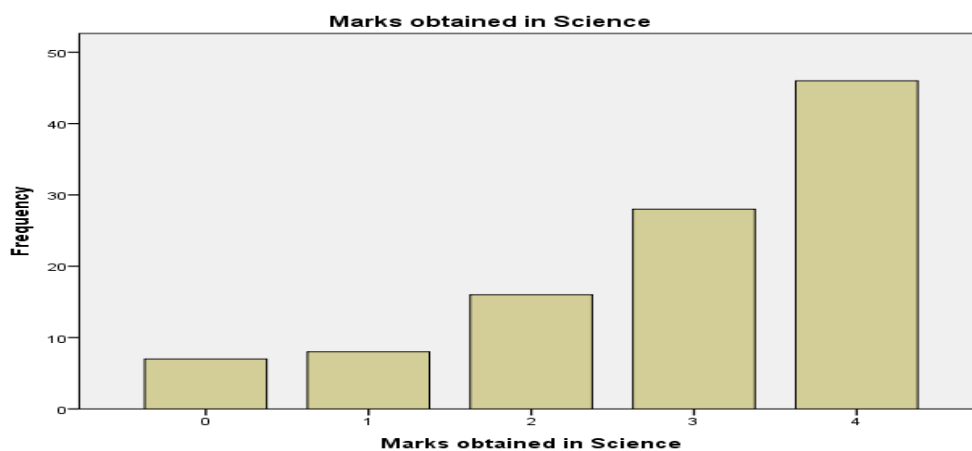
Science section of test include questions like; definition of matter, atom, particles name, any three properties of light, and to mention any five man made materials. Respondents score overall is concluded satisfactory. Statistical and graphical representation of respondents scores are given as below:

**Table 17: Respondents obtained marks in science**

Marks obtained in Science				
	Frequency	Percent	Valid Percent	Cumulative Percent
0	7	6.7	6.7	6.7

1	8	7.6	7.6	14.3
2	16	15.2	15.2	29.5
3	28	26.7	26.7	56.2
4	46	43.8	43.8	100.0
Total	105	100.0	100.0	

**Figure 17:**



**Summary of respondents' grand total score in test taken:**

Test taken from respondents contained 26 questions all over. Overall performance in test is recorded and analysed. 11% of the respondents obtained 18 marks out of 26, followed with 9% of the respondents' obtained 15 marks in test. Overall statistical and graphical analysis of respondents results are given as follows:

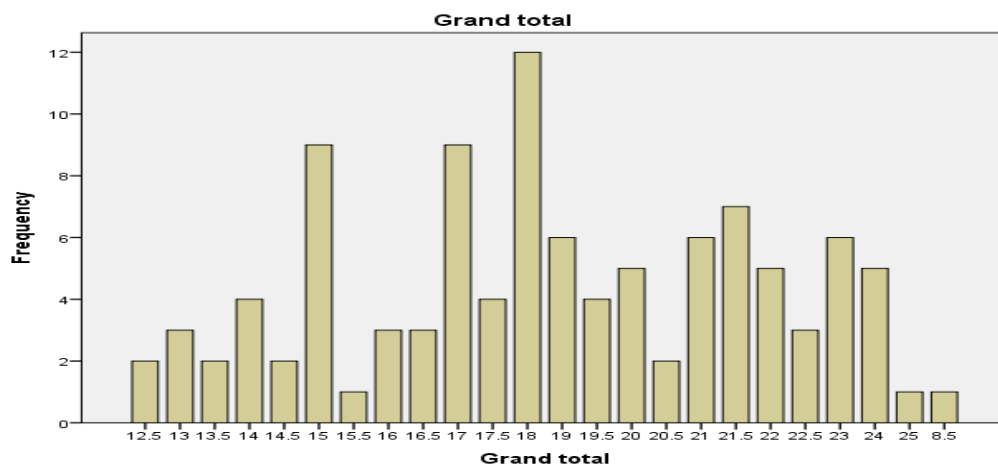
**Table 18: Respondents grand total score in test taken**

Grand total				
	Frequency	Percent	Valid Percent	Cumulative Percent
12.5	2	1.9	1.9	1.9
13	3	2.9	2.9	4.8
13.5	2	1.9	1.9	6.7
14	4	3.8	3.8	10.5



14.5	2	1.9	1.9	12.4
15	9	8.6	8.6	21.0
15.5	1	1.0	1.0	21.9
16	3	2.9	2.9	24.8
16.5	3	2.9	2.9	27.6
17	9	8.6	8.6	36.2
17.5	4	3.8	3.8	40.0
18	12	11.4	11.4	51.4
19	6	5.7	5.7	57.1
19.5	4	3.8	3.8	61.0
20	5	4.8	4.8	65.7
20.5	2	1.9	1.9	67.6
21	6	5.7	5.7	73.3
21.5	7	6.7	6.7	80.0
22	5	4.8	4.8	84.8
22.5	3	2.9	2.9	87.6
23	6	5.7	5.7	93.3
24	5	4.8	4.8	98.1
25	1	1.0	1.0	99.0
8.5	1	1.0	1.0	100.0
Total	105	100.0	100.0	

**Figure 18:**



#### 4.5 Students past grades performance analysis:

Respondents performance is also analysed by analysing past performance at school. Analysing students past result percentage in grade 5 , 6 and 7 and to find out whether their performance increased, decreased or remain constant. Respondents includes students from both control and experimental group. Following results are obtained which is discussed as follows:

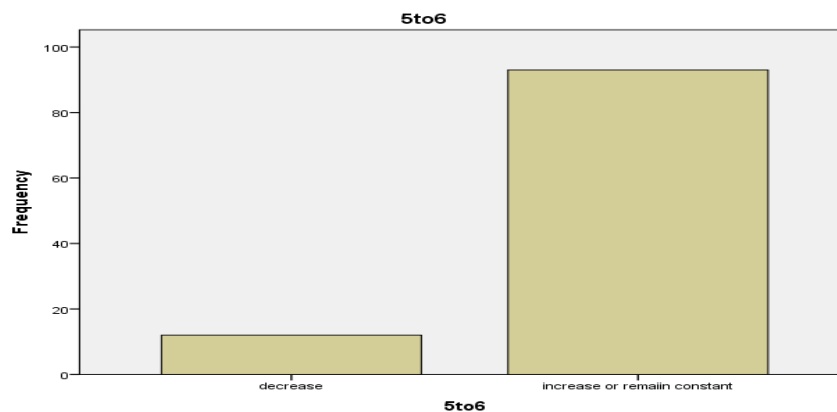
#### Summary of respondents grades comparison (grade 5<sup>th</sup> and 6<sup>th</sup>):

Below table shows that students, when shifted from private to public schools after completing primary education at public school and those who studied in public schools from the very beginning of their education, are their grades decreased, increased or remain same as before. This ultimately shows the performance of public schools as well. Below table and graph shows the statistical and graphical representation of analysed data.

**Table 19: Respondents past grades comparison of class 5 and 6 grades**

5to6				
	Frequency	Percent	Valid Percent	Cumulative Percent
Decrease	12	11.4	11.4	11.4
increase or remain constant	93	88.6	88.6	100.0
Total	105	100.0	100.0	

**Figure 19**



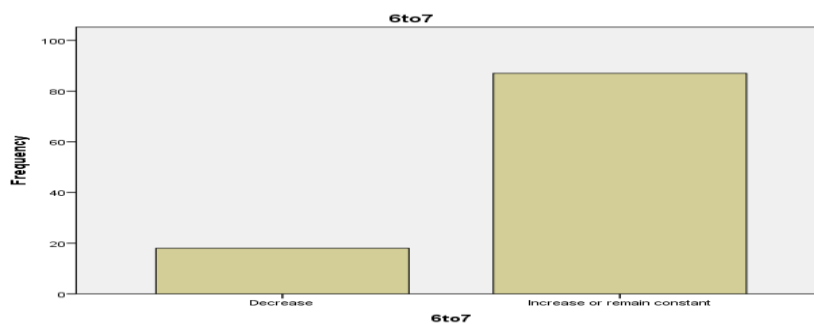
**Summary of respondents grades comparison of grade 6 and 7:**

Below table shows that 83% of the respondents’ grades are either increased or remain constant in grade 7 in comparison to grade 6. 17% of the respondents includes students whose grades are decreased in grade 7 in comparison to grade 6. Statistical and graphical representation of respondents’ performance are given as follows:

**Table 20: Respondents grades comparison of class 6 and 7**

6to7				
	Frequency	Percent	Valid Percent	Cumulative Percent
Decrease	18	17.1	17.1	17.1
Increase or remain constant	87	82.9	82.9	100.0
Total	105	100.0	100.0	

**Figure 20:**



**Summary of the respondents grades comparison of grade 5 and 7:**

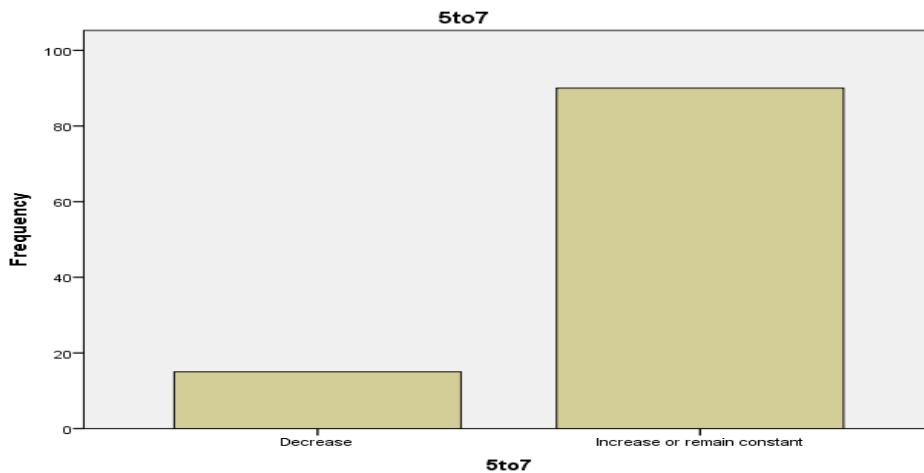
Comparing respondents’ percentage in grade 7 to respondents’ percentage in grade 5<sup>th</sup>, 86% of the respondents includes students whom percentages are increased or remain constant in grade 7 in comparison to their result percentages in 5<sup>th</sup> grade.. 14% of the respondents includes students whom percentages are decreased on grade 7 as compared to grade 5<sup>th</sup>.

**Table 21: Respondents grades comparison of class 5 and 7**

5to7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Decrease	15	14.3	14.3	14.3
	Increase or remain constant	90	85.7	85.7	100.0
	Total	105	100.0	100.0	

Figure 21



#### 4.6 Regression Analysis

Researcher choose regression analysis to determine the strength of the relationship between dependent and independent variable and the series of other changing variable.

#### Model of Regression

##### 4.6.1 When independent variable is public private school

##### Summary of students' performance from grade 5 to 6:

In below table both dependent (students' grades) and independent variable (students who shifted to public schools from private school and also those students who studied in public schools from the beginning of their studies and named as variable public/ private school) are dummy variable with label 0 and 1. 0 is for the students who have studied in public schools

from the very beginning of their studies and 1 shows the students who has shifted from private to public school after completing their primary education. This model shows one to one relationship between dependent and independent variable. Without including any results show that students who have shifted from private to public schools after completion of their primary education, their grades show insignificant improvement. While the model with all controls (individual, parental and school controls) show that students' performance has been improved with the probability of 0.1 %, although this change is insignificant.

**Table 22: student performance comparison of grade 5 and 6**

**For Students performance from Grade 5 to 6**

<b>Variable</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>
<b>Pub/Pvt</b>	-0.005 (0.6255)	-0.116 (0.058)	-0.0007 (0.55)	0.0004 (0.555)
<b>Observations</b>	105	105	105	105
<b>Ind Controls</b>	No	Yes	Yes	Yes
<b>Parental Controls</b>	No	No	Yes	Yes
<b>School Controls</b>	No	No	No	Yes

**Summary of students' performance from class 6 to 7 when dependent variable are students Grades.**

Below table shows that when all controls are included in regression analysis using logit model, this shows that students grades do not improved when they promoted to grade 7 from grade 6 and results and not significant.

**Table 23: Students performance comparison of grade 6 and 7**

**Students' performance from grade 6 to 7**

<b>Variable</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>
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<b>Pub/Pvt</b>	0.111 (0.07)	-0.14 (0.068)	-0.006 (0.068)	-0.01 (0.067)
<b>Observations</b>	105	105	105	105
<b>Ind Controls</b>	No	Yes	Yes	Yes
<b>Parental Controls</b>	No	No	Yes	Yes
<b>School Controls</b>	No	No	No	Yes

**Summary of students performance from class 5 to 7: when dependent variable is students Grades.**

Below results shows improvement in grades in grade 7, including individual, parental and school controls, means all these play a significant role in improvement of students' grades. The probability of improvement is 6% including all the controls.

**Table 24: students' grades improvement from class 5 to 7**

<b>Variable</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>
<b>Pub/Pvt</b>	0.222 (0.69)	0.003 (0.062)	0.06 (0.05)	0.06 (0.05)
<b>Observations</b>	105	105	105	105
<b>Ind Controls</b>	No	Yes	Yes	Yes
<b>Parental Controls</b>	No	No	Yes	Yes
<b>School Controls</b>	No	No	No	Yes

**4.6.2 When dependent variable is grand\_total\_n**

**Summary of students performance analysis based on test taken:**

In below table data includes test results (measured in grand total, marks obtained as total out of 26) of subjects included English, mathematics, general knowledge and science which were

taken during data collection. Test was based on basic questions from their previous course work and were taken from all student who now study in public schools including those students as well who shifted to public schools from private schools after completing their primary education and now currently enrolled in grade 7 of public schools. In above table dependent variable is marks students obtained in test taken and independent variable include students shifted from private to public schools as well as who studies in public schools from the beginning of their education. Simple OLS model is used to run regression as dependent variable is a continuous variable.

**Table 25:**

<b>Variable</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>
<b>Pub/Pvt</b>	0.31	0.21	0.2	0.227
	0.658	0.65	0.647	0.653
<b>Const</b>	18.311 ***	18.11***	18.61***	18.01***
	(0.498)	(1.769)	(2.227)	(2.59)
<b>Observations</b>	105	105	105	105
<b>R Square</b>	0.002	0.07	0.08	0.105
<b>Ind Controls</b>	No	Yes	Yes	Yes
<b>Parental Controls</b>	No	No	Yes	Yes
<b>School Controls</b>	No	No	No	Yes

Above table shows the result that one unit increase in independent variable (students who are currently enrolled in public schools) their test result shows improvements. With all controls including individual controls (gender, family size, school attendance percentage and study time after school hours), parental controls (mother education, father education, mother job, father job), and school controls (distance of school from home, travelling mode to school), results

shows 22% of improvements in students in grand total of test. Without controls result of students test shows improvement by 31%.



## Chapter 5

### Results and Discussion

The study is designed to analyse the performance of students who have shifted to government schools in district Mansehra. The aim is to evaluate the performance of students who shifted from private to public school after completing their primary education that their performance improved, declined or remain same after shifting school. Reason to choose this topic is as shift of students to public school from private school in Khyber Pakhtunkhwa is observed in recent 2 to 3 years, and almost 150,000 students has been shifted to public schools from private schools in KPK. There is a perception also that private schools perform better than government schools. As this research is a primary research on district Mansehra to analyse the student performance after students shifted to public school and to evaluate are public schools are now performing better or same as private school.

To analyse student performance in rural areas of district Mansehra, target population is students of grade seven, currently enrolled in public schools and these students are classifies into two groups. One group is called treatment group consist of students who shifted from private school to public school after completing their primary education and now studying in grade seven. Other group is called controlled group which consist of students who studies in public school from the beginning of their education and now studying in grade seven (as mentioned in research design and methodology) that whether the performance of treatment group students improved, deteriorate or remain the same as compared to previous result, or the student of controlled group are performing better than treatment group.

Data was collected using questionnaire, by analysing students past grades (in class 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup>), as well as by conducting small test based on Mathematics, English, Urdu and general knowledge from students. Sample size is 105 respondent students currently enrolled in public schools and studying in grade 7. Questionnaire is composed of questions on different variables

like individual control, parental control and school control, to see if these factors influence/ effect students' performance. Individual controls comprised of questions like gender, family size, attendance percentage at school, study time after school hours respondent give to studies. Parental controls consist of questions like mother education, mother job, father education and father job. Schools control comprised of questions like distance of school from home, travel to school (by walk, school van or private vehicles), past grades in grade 5<sup>th</sup> 6<sup>th</sup> and class 7<sup>th</sup>. Along with questionnaire test was also taken which was divided into four portions included English, mathematics, science and general knowledge. Very basic questions were asked from the students to analyse their understanding to the subject.

In previous chapter researcher has done complete evaluation of collected data. Data is analysed using SPSS and Stata. Descriptive analysis along with the model testing is done in previous chapter.

Descriptive analysis of questionnaire on different variable is done using software called SPSS and according to the results students past grades shown improvements. Students currently enrolled in public schools of district Mansehra, improvement in their past results has been observed with every passing year.

### **5.1 Individual control:**

Discussing individual control, average attendance percentage of students in schools is between 70 to 80%. Student attendance at school along with teacher attendance is one of the main factor that help students to perform better. Students if attend school regularly, helps them to understand concept more easily and ultimately plays role in improvement of grades. 50% of the respondents answered that they spend 1 hours on their studies after school hours. It is observed from data analysis that 40 % of the respondents' grades in class 5 are in between 60 to 70 % and 17 % of the respondents are with percentages in between 71% to 80 %. In grade 6, 2% increase is observed in students who acquired 71 to 80% of percentages. Number of

students with 61 to 70% is same as 40% in grade 6 as compared to grade 5<sup>th</sup>. Analysing students' percentages in grade 7, it is observed that there is increase of 5% in students who acquired 71 to 80% marks in grades 7, although this improvement is minor but continuous improvement in student performance is observed.

## **5.2 Parental control**

Discussing parental controls which includes parents' education, mother job and father job as parents' education may be a good measure of the home environment's impact on students' achievement. Parental are the first care givers to their kids so their involvement in their child education process is given a high priority. Evidence advocate that parents who are full time employed and still earning low income may have low education. It is also suggested through evidence that parent with high education have better chance to earn well and also educated parents can better care and nourish their child for their hygiene and health due to which child learning abilities and attendance flourish (National Centre for Children in Poverty, 2007).

It is analysed that 66% of the respondents includes whom mothers are illiterate, and 99% of the mothers are house wives. According to a rear foundation report, an educated mother expectations towards her child is high and shows more responsibility. Analysing father education of the respondents, 23% of the fathers' education is matric, and almost 28% of the respondents' fathers are illiterate.

## **5.3 School Characteristics**

Analysing school characteristics, comprised of questions like school distance from home, means of travelling to school, 47 % of the respondents' distance of school from home is 15 to 30 minutes, followed by 43% of the respondents living at a distance of 10 to 15 minutes. This shows that schools are approachable to most of the students. As 73% of the students go to school by walk. After visiting schools during data collection process, researcher analysed that

school infrastructure condition is quiet good, washrooms, boundary wall, playgrounds, sufficient classrooms, drinking water facility is available at each school.

#### **5.4 Discussion on students' performance in the basis of their past grades and test taken**

Evaluating students past grades, in class 5<sup>th</sup>, 6 and 7 to observe if there is any improvement in grades, researcher used regression analysis in which logit model is used to analyse students past performance. Using logit model, schools are taken as independent variable while students' grades are taken as dependent variable. Both dependent and independent variables are dummy variable with label 0 and 1. 0 for those who never attended private schools and for those whose grades decrease from past year. This model shows 1-1 relationship among variables. Results shows that including all controls (discussed above) which includes individual characteristics, parental controls and school characteristics, shows that students' performance has been increased by 0.1% when students shifted from private to public schools and those who are already enrolled in public schools. While analysing the result of grade 7 in comparison of grade 5<sup>th</sup>, the probability of improvement is observed as 6%. This shows that of public schools are not very good then private schools in district Mansehra, they are in equal competition to private school and sometime good as well as most of the students grades are continuously improving or remain the same in comparison to past years. Analysing students test grades, it is observed that mostly students got more than 50% marks in test.

#### **5.5 Summary**

Comparing past grades and test result, very slight improvement has been observed as there are other variable as well which influence students' performance. Results shows the positive aspect that government is giving a serious attention to education sector of KPK and government school if not performing extraordinary better than private schools, they are improving in their performance from the past years and students in public schools who shifted from private schools, their performance is not decline and shown improvement, which ultimately shows that

public schools are performing same a private schools and the perception that private schools are performing better is no more valid in rural areas of district Mansehra.

### **5.6 Policy implication**

When there is a competition, chance to have better quality is increased. Government of KPK has taken many steps to improve government school condition and education system overall has been improved in KPK. Teacher trainings are now frequently conducted and teacher attendance is recorded in schools. Public schools are improving their performance in KPK, which result in shift of students from private schools to public schools in recent past years.

Government of KPK is now more focusing on education sector, so quality education must be ensure in all public school my taking different measures like online test competition for each grade (grade 6 to 8) every year to analyse student performance and to evaluate that the quality education is provided in schools are not, how much the students are learning at school. This can be done by taking online test from students which help government to analyse students' education situation well in time. As this is the time when students are learning different concept which help them in further studies and for innovative learning.

It is suggested that the unregistered private schools should be closed to ensure the quality education in district Mansehra.

Government of KPK is paying a serious attention on education sector and in doing so many reforms in education sector has been observed in past years. Reforms like infrastructure has been developed, teachers training has been conducted, elementary and secondary education department has constructed over 10000 classrooms, boundary wall labs etc. teachers are hired through independent testing process of NTS. Action against teachers' absenteeism were taken and also introduced incentive program for teacher performance appraisal.

As KP government is taking a lot of initiative for provision of better education system, so KP government should also regulate private schools (regarding fee issues) and action should be

taken against non-registered private schools. Syllabus till primary education should be more activity based rather cramming system to create innovative and creative learners.

### **5.7 Limitations**

As title suggest public VS private schools: students' performance analysis in district Mansehra, here the student's means those students who have shifted from private to public schools in comparison to those who studied in public schools from the very beginning of their studies. Purpose of choosing this topic is to analyse students' performance who have shifted from private to public school. As shift of students from private to public schools has been recorded in recent years. Purpose was to analyse that after the shift students' performance has improved, declined or remain the same as compared to private school performance and to analyse the performance of those students who studied in public schools from the very beginning of their studies. Due to some constraints and need of the topic, researcher collected data from students who shifted from private to public schools and those who studies in public school from the very beginning of their studies and students who studies in private schools were not not included in data collection as explained in methodology.

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