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Comparison of Infrastructure, Pedagogy and Academic Achievements of Public and Private Secondary Schools in Quetta District

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ABSTRACT

The main purpose of the study was to compare infrastructure, pedagogy and academic achievements of public and private secondary schools in Quetta using descriptive method. The data was collected from 09 private schools and 11 public schools head teachers and teachers of Quetta district. The data about infrastructure was provided by school heads through a check list, the information about pedagogy through questionnaire from school teachers and academic achievements was collected from the BISE results of the sample schools.

The data analysis was done through descriptive and inferential statistics. The data exhibited a little difference between the government and private school teachers regarding pedagogy and students achievement. Thus, it was inferred that public and private schools' teachers were having little difference in pedagogy as well as there was a little difference in the achievement level of students at private and public schools of Quetta, but the public schools were better in infrastructure than the private schools. The educational administrators and managers can benefit from the results.

Introduction

The economic development of any country may face a great hurdle of illiteracy. The countries that spend much of their revenue on education sector, progress by leaps and bounds. (Card, 1999). Children are the foundation of firm future of any nation. The more a country spends on the early education, the more better young generation they produce. The evidence is available on the significance of educational facilities and students performance as outcome having mixed results (Case & Deaton, 1999). a survey by Hanushek (1986, 1996) suggested productive effects of facilities on students' performance is useful for developing as well as advanced countries. there are studies that students performance is affected by the size of class. (Akerhielm, 1995; Angrist et al., 1998; Case & Deaton, 1999). but a number of studies has asserted that the size of class has no impacts on students educational performance. (Hanushek, 1996; Hoxby, 2000). Likewise, a number of studies asserted the teacher competence, academic and professional qualification and experience has great impacts on students performance (Michaelowa & Wittmann, 2007; Santibanez, 2006).

Awan (2014) says that education plays a pivotal role in the rise and fall of nations especially in 21st century. It is mainly due to the emergence of global competition in education and technology. This competitive environment is the core need for progress of any country. Awan (2011) argues that all countries including Pakistan have different school systems but when we divide them we find two major categories of school systems:

private and public schools. In Pakistan private schools are getting mass acceptance today to ensure sustained progress of the country. Therefore, the main objective of this paper is to compare the infrastructure, pedagogy and academic achievements of public and private secondary schools in Quetta. The quality of education is assessed by education levels of teachers, method of teaching, curriculum, and study environment. During 1990s and 2000s private sector was emerged as a key provider of education services in Pakistan both in absolute terms and relative to the public sector. One piece of evidence relates to the number of private schools, which increased by 69%, as compared to mere 8% increase in number of schools. In 2000 private sector was catering the educational needs of about 6 million children. This number increased to 12 million in 2007-08 – equivalent to 34 percent of total enrolment. The number of teachers also doubled in private educational institutions during this period. Awan and Saeed (2014) plead that private educational institutions are playing key role not only in eradicating illiteracy but also enhancing the level of students as well as teachers by providing better academic environment. Awan (2012) disclosed that private sector contributed significantly in eradicating illiteracy in the emerging economies. If private school properly managed, they can uplift educational standard in Pakistan as well.

A survey study was conducted by Nazi and Mace (2006) measuring the factors like size of family, parental income, facilities and resources availability. it was concluded that the performance of public was better as compared to private schools

but the in term of educational outcomes the Private school higher than public schools.

the LEAP project commissioned by World bank in 2007 which was authored by Andrabi T. Das J. Khwaja A. Vishwanath T. & Zajonc. The report provided most important data about the comparison of the private and public schools of Punjab. firstly it was reported that the private schools are better in providing basic facilities including number of classroom, blackboards, libraries, fans and electricity. furthermore, it's findings regarding quality of learning were also important as it reported on the basis of test score of class three from the private and public schools that the performance of the students from the private schools were better in comparison of public schools.

Similarly the very evidence came from the testing results conducted by National Educational Assessment System (NEAS) nationally and the Punjab Examination Commission (PEC) at provincial level displayed a very little difference of academic performance between the public and private schools students.

This study was to compare infrastructure, pedagogy and academic achievements of public and private secondary schools in Quetta using descriptive method. The data was collected from 09 private schools and 11 public schools head teachers and teachers of Quetta district. The data about infrastructure was provided by school heads through a check list, the information about pedagogy through questionnaire from school teachers and academic achievements was collected from the BISE results of the sample schools. The data analysis was done through descriptive and inferential

statistics. The data exhibited a little difference between the government and private school teachers regarding pedagogy and students achievement. Thus, it was inferred that public and private schools' teachers were having little difference in pedagogy as well as there was a little difference in the achievement level of students at private and public schools of Quetta, but the public schools were better in infrastructure than the private schools. The educational administrators and managers can benefit from the results.

Problem Statement

Two major categories of school systems are there in Pakistan: private and public schools. In Pakistan private schools are getting mass acceptance today to ensure sustained progress of the country. Therefore, the main objective of this paper is to compare the infrastructure, pedagogy and academic achievements of public and private secondary schools in Quetta. The quality of education is assessed by education levels of teachers, method of teaching, curriculum, and study environment. Each system has its merits as well as demerits. To my little knowledge the comparison of private and public schools in term of infrastructure, pedagogy and achievement is paused in the context of Baluchistan. Therefore, the study is conducted to measure which system is performing better than other.

Research Objectives

The following objectives were framed as under;

- To measure the difference of pedagogy between the public and private school teachers.

- To compare the infrastructure between the public and private schools
- To compare the achievement between the public and private school students.

Research Questions

The following questions were framed as under;

- What is difference of pedagogy between the public and private school teachers?
- What is difference infrastructure between the public and private schools?
- What is difference the achievement between the public and private school students

Pedagogy

The development of a person's structure to understand the rules, scientific views, and act consistently in ensuring their integrity, is known as pedagogy. The researches on pedagogy encircle the cultural, political and social context within which schooling as well as the curriculum are framed. To some extent, it may also be the result of a difference between pedagogy and instruction, in which only instruction is concerned with every day's work of teachers in classrooms (Black and Wiliam, 2018).

Infrastructure

In the implementation of education, the basic concern of the education unit are educational facilities and infrastructure. The educational system in schools need abundant educational facilities and infrastructure either directly or indirectly for using in teaching and learning activities (Herwan et al., 2018).

The obstacles in the development of facilities and infrastructure include: limited costs, the advantages of facilities and infrastructure. But sometimes, the

availability of educational facilities and infrastructure for backing the learning system is not proportional to the number of students and teachers in school and the availability of facilities and infrastructure. Because these facilities may be more than the required amount or may not be utilized properly owing to which these facilities and infrastructure are only stored in the warehouse and over time become damaged before being used to support learning activities in the school (Suliah, et al., 2019).

Academic Achievements

The development of core executive functions (inhibition, working memory, and cognitive flexibility) and metacognition have been closely related with academic achievement and classroom behaviors and are essential for healthy child development (Álvarez-Bueno et al., 2017).

Factors Affecting Academic Achievements

Educational researchers and academicians emphasize that supportive school and classroom climates can positively exert affect on the academic outcomes of students, thus potentially reducing academic achievement gaps between students and schools of different socioeconomic status backgrounds (Berkowitz et al., 2017).

The academic achievements of students is not only measured by their academic ability, but there are several other factors including study duration. Academic achievement gaps between students with higher and lower achievements can be reduced if students with low achievement are given ample time to study tailored to their need and ability. In classrooms, all students have the same period to study,

which creates academic achievement gaps (Prayitno et al., 2017).

Comparison of Private and public Schools

Iqbal (2012) worked on comparison of leader's leadership styles, management practices and physical facilities between public and private secondary schools. He gathered the data from 3 schools of each type of Lahore city. The stakeholders (principals, teachers, students and their parents) were interviewed (96 interviews). The data was analyzed by using qualitative analysis methods. It was found that, the public schools have better facilities, spacious buildings, highly qualified staff and people oriented management styles as compared to private schools.

Research Methodology

The main purpose of the study was to compare infrastructure, pedagogy and academic achievements of public and private secondary schools in Quetta using descriptive method. The data was collected from 09 private schools and 11 public schools head teachers and teachers of Quetta district. The data about infrastructure was provided by school heads through a check list, the information about pedagogy through questionnaire from school teachers and academic achievements was collected from the BISE results of the sample schools.

The data analysis was done through descriptive statistics. The data exhibited a little difference between the government and private school teachers regarding pedagogy and students achievement. Thus, it was inferred that public and private schools' teachers were having little difference in pedagogy as well as

there was a little difference in the achievement level of students at private and public schools of Quetta, but the public schools were better in infrastructure than the private schools. The educational administrators and managers can benefit from the results.

Population

All the public and private high schools for girls and boys of Quetta district are the population of our study. There were in total 98 public high schools. There were about total 5702 teachers who are teaching in the public schools of Quetta district. These numbers are obtained from the Baluchistan Education Statistics report 2017-19.

The data about the number of private schools was not known due to the unavailability of data.

Sample of the Study

It was two staged sampling

- At first 09 private schools and 11 public schools were selected from Quetta district.
- At second stage one head teachers and 10 school teachers were selected randomly.

In this way the sample was comprised of total 20 head teachers (11 public school heads and 09 head teachers from private schools) and 200 school teachers (80 private school teachers and 120 public school teachers).

Tools

There were two instruments

1. A **checklist** for the head teachers was used about the comparison of school infrastructure and BISE results for the last three years in order to compare the achievement of students between private and public schools of

Quetta district. The checklist consisted of FOUR subcategories.

- The first category was about general information about the school heads having 6 items.
- The second category was about the general information about strength, class rooms and sections in total.
- The third category was about structure and design of school building having 30 items.
- The fourth was about the facilities regarding students' physical activities outside classroom having 10 items.
- And the fourth comprised about the last four years BISE result. i.e 2016-19.

2. A **questionnaire** to be filled by the school teachers about the comparison of pedagogy between private and public schools of Quetta district was utilized. the questionnaire measured the respondents' responses on FOUR point scale i.e. 1=Always, 2= Often, 3=Sometimes, 4=Never. The questionnaire consisted of **TWO** parts and **FIFTEEN** items in total as under;

- The first part was about the personal and professional information about the teachers.
- The second part was about measure the pedagogical skills of the teachers teaching in the public and private schools of Quetta district.

Reliability and validation of instrument

The tools were validated with the consultation of experts in the field of education.

In order to ensure the reliability of instruments, it was piloted with 10 % of respondents and tested statistically that is Cronbach alpha having the value of 0.7 or

70%. According to Malhotra, 2004 for an appropriate instrument to be accepted, it is good have a value more than 60%.

Collection of Data

The collection of data took 02 months. The tools were distributed among sampled schools. The researcher personally visited the schools and requested the respondents to fill on the same day but in case of any reason the researcher had to visit the school twice or thrice a week. This brought a fruitful result as a 100% response from the respondents. In the form of hard copies of the tools were collected.

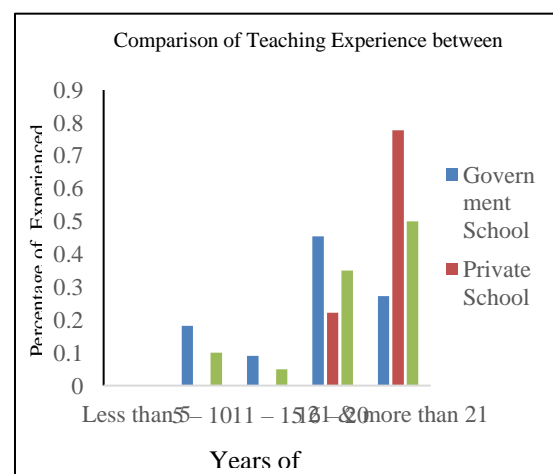
DATA ANALYSIS

The responses of the study were organized, tabulated and analyzed by using statistical operation through SPSS. The data analysis was done through descriptive statistics.

Section A

3.1 Demographic Statistics

Figure 3.1.1 distribution of government and private school teachers on the bases teaching experience;

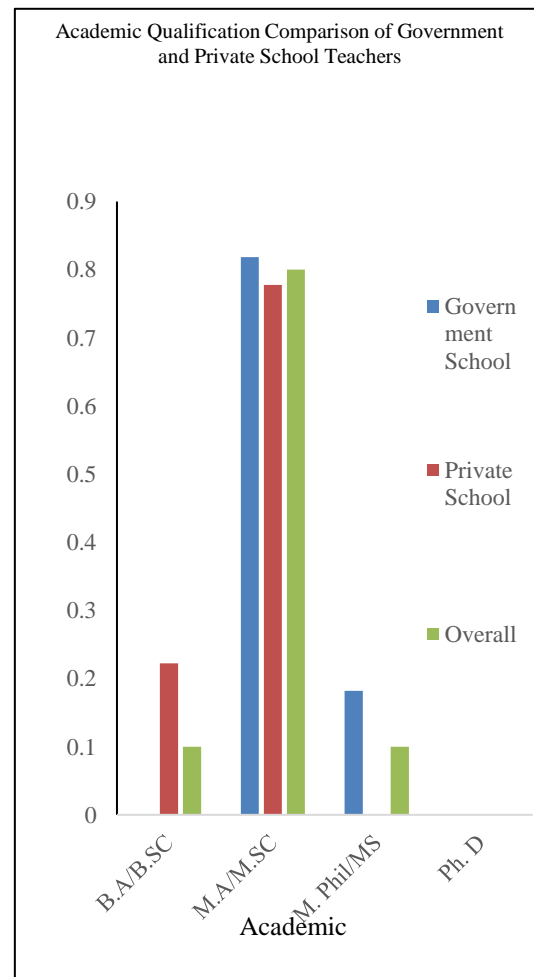


The distribution of the teaching experience of participants was reported in Figure 3.1.1 which was categorized into five parts that

ranged from less than five to more than 21. The results reported that no participant of the study had less than five years' experience neither in government nor in the private school of Quetta. Further, 18% of the government schools having six to ten years of teaching experience, and 9% of teachers of government schools having 11 to 15 years' experience, while the study found no teacher in private schools of this teaching experience range.

Moreover, the results showed that more than half of the teachers in private schools having more than 21 years' experience (64%), while most of the government teachers having 16 to 20 years' experience that is 45% of the total sample of government schools. However, 21% of teachers at government schools having more than 21 years' experience. Thus, it was inferred from the results that teachers at sample schools were having more than 21 years' experience.

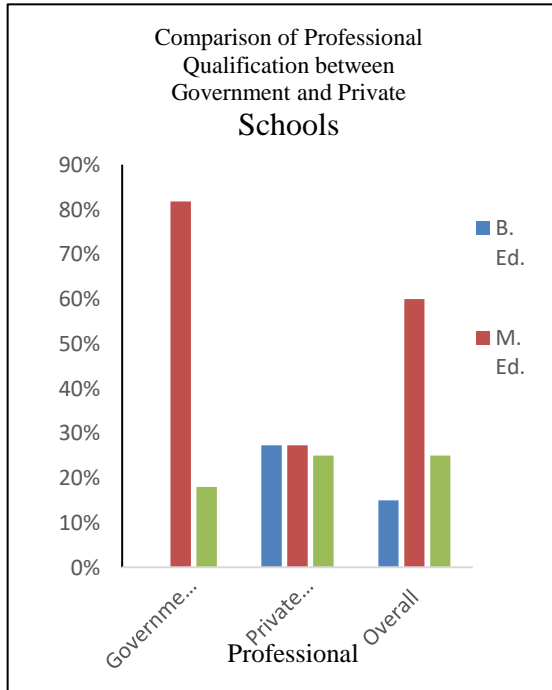
Figure 3.1.2 Comparison of qualification of government and private school teachers



The Figure 3.1.2 exhibited the distribution of collected data from sample participants regarding the academic qualification which showed the comparison of the distribution of academic qualification of government and private school teachers. According to Figure 3.1.2, the number of graduate teachers in government and private schools were 82% and 78%, respectively. In addition, 18% of teachers at Government schools were having MS/M. Phil qualification in contrast with none MS/ M. Phil qualified teachers in private schools. It is worth mentioning that there were no Ph.Ds in both sample populations. Overall, most of the teachers in both types of schools were graduates which indicates that educational standard

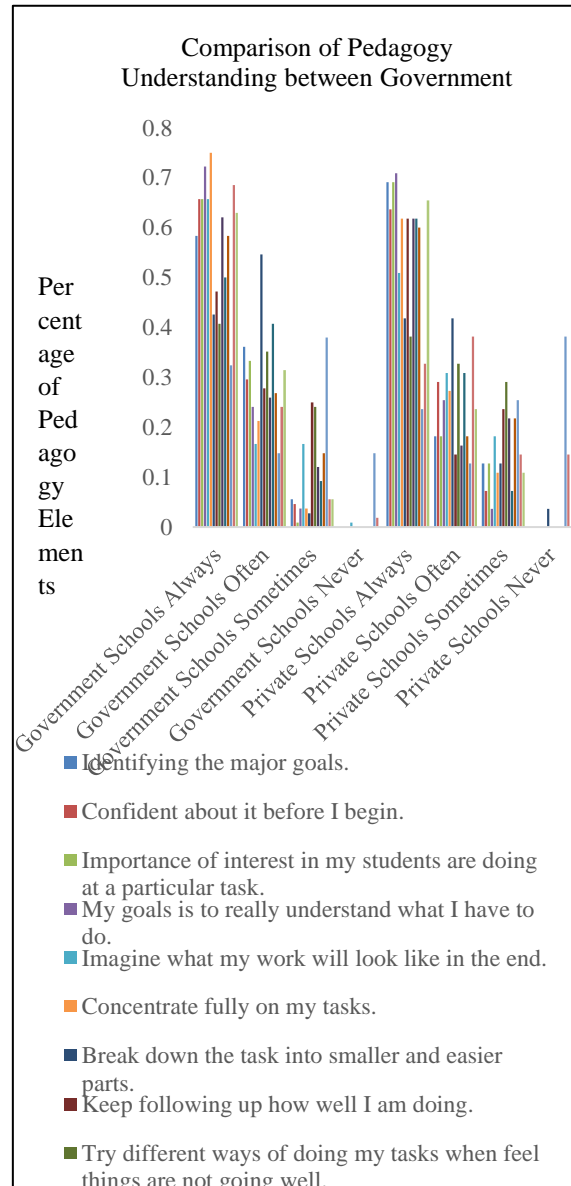
is equally followed in each type of schools.

Figure 3.1.3 Professional qualifications-wise distribution of government and private schools;



The Figure 3.1.3 demonstrated the distribution of professional qualification of participant teachers in government and private schools. According to the distribution reported, 82% of the government teachers were having M. Ed, 36% B.Ed and only 18% qualified with other professional trainings. In contrast, 33% of private school teachers were professionally qualified with B.Ed and M.Ed degrees. An overall qualification bar indicated that most of the sample populations were qualified with M.Ed degree.

Figure 3.1.4 Comparison of pedagogy between government and private schools;

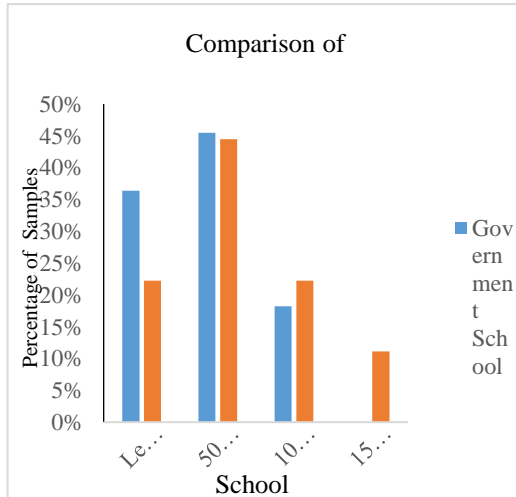


This section of the study contained the results based on the data collected from 200 teachers in sampled schools, 120 from public school and 80 from private schools. The items included in the questionnaire were related to the understanding of pedagogy. The Figure 3.6.1 reported the data regarding the understanding of pedagogy in government and private schools. The data exhibited a little difference between the government and private school teachers regarding the pedagogy.

Section B

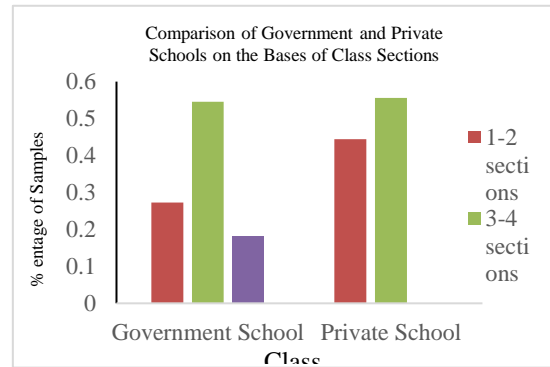
3.2 School Infrastructure

Figure 3.2.1 Comparison of government and private schools on the bases of strength



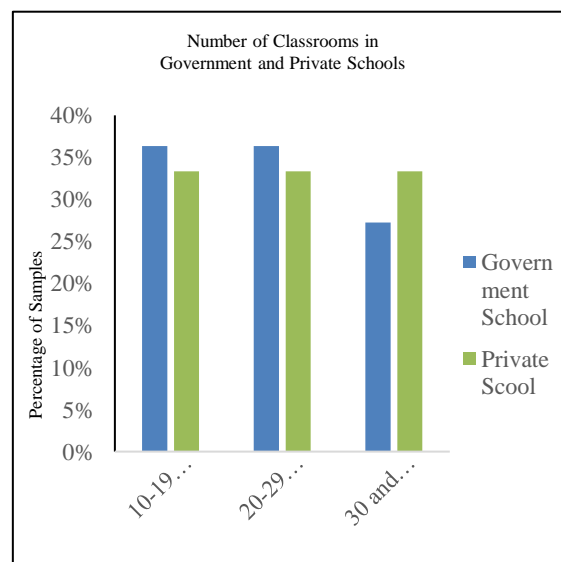
General information of school consisted of three elements: the strength of the school, classrooms, and sections of each class. The Figure 3.2.1 reported the distribution of the strength of government and private schools of Quetta. The strength of students in school ranged from less than 500 to more than 1500 students and the range was divided into four different categories. According to Figure 4.3.1, 36%, 45%, and 18% of the government schools had less than 500, 500-999, and 1000-1499 students, respectively. Conversely, 11% of the private schools had the strength of 1500 students, while 22% had less than 500 students. Moreover, there were 44% schools with 500-999, and 22% with 1000-1499 students.

Figure 3.2.2 Comparison of government and private schools on the bases of class sections



The Figure 3.2.2 exhibited the distribution of class sections in private and government schools in Quetta, selected as the sample of the study. The sections of classes ranged from 1 to 6 in government and private schools. There were more than half of the government (55%) and private (56%) schools having three to four sections for each class. Additionally, 1-2 class sections were found in 27% of the government and 44% of the private schools. However, 5-6 sections of each class were only observed in the government schools (18%).

Figure 3.2.3 Number of classrooms in government and private schools



The distribution of the number of classrooms in government and private schools in Quetta was exhibited in Figure

3.2.3. The data for number of classrooms in both type of schools was collected in the range of 10-19, 20-29 and 30 and above. It was found that government schools exceeded the number of classrooms in the range of 10-19 (36%) and 20-29 (34%) and 33% private schools having 10-19 and 20 to 29 classrooms. Whereas, 33% of private schools, as compared to 27% of government schools possessed more than 30 classrooms. Thus, it is inferred that there is no such significant difference between the number of classrooms in private and government schools of Quetta city.

3.3 Structure/Design

Figure 3.3.1 Elements of structure/design of government and private schools;

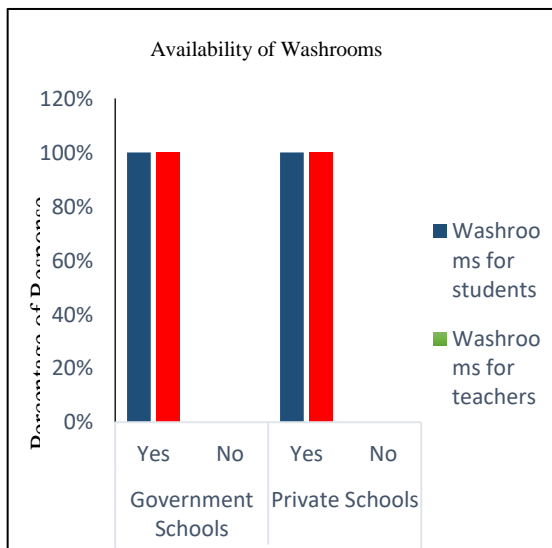
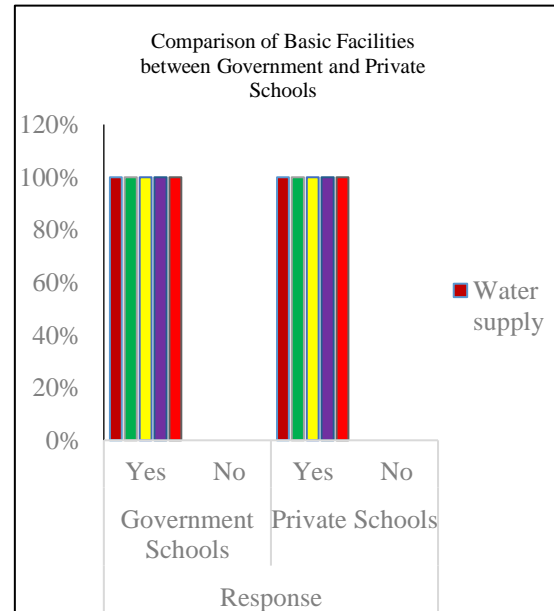


Figure 3.3.1 expressed the distributions of responses regarding different items of structure/design of government and private schools of Quetta. The figure explained that washrooms were available for students as well as teachers in all the sample schools of this study. There is no such school that having the issue of washroom availability either for students or teachers. Thus, it is inferred that

statistically there is no difference between both groups of schools regarding the washroom availability.

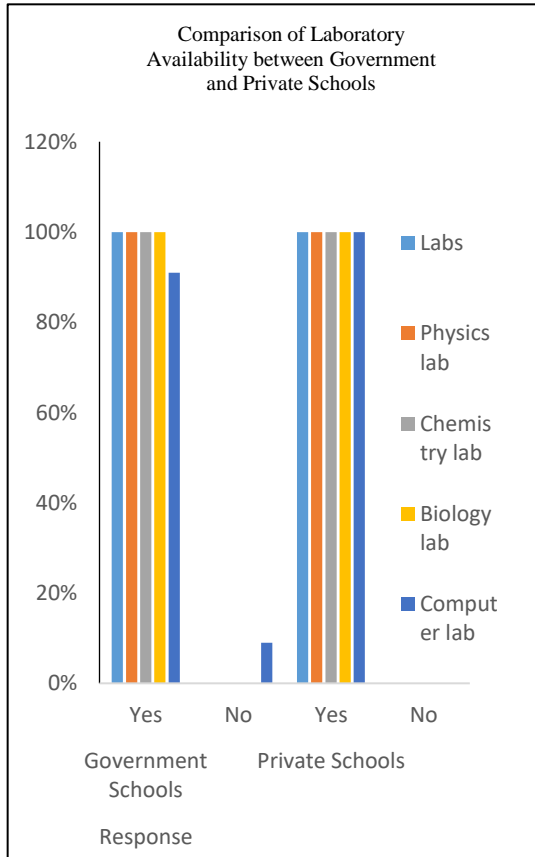
Figure 3.3.2 Comparison between government and private schools on facilities available in the school;



The **Figure 3.3.2** indicated the availability of basic facilities at school such as water supply, gas and electricity connections, water tank for pure drinking for students, and security of the school (security system with the installation of CCTV cameras) in the premises of the school. The participants were given two options yes or no. The bar chart shows the percentage of each response for every item of basic facilities at government and private schools. It was observed that both groups of schools had basic facilities and there was no significant difference between the private and public schools. All the sample schools having water supply connections in their schools. The facility of gas and electricity connection was also available at all schools and the students didn't have any issue regarding pure drinking water. Security systems

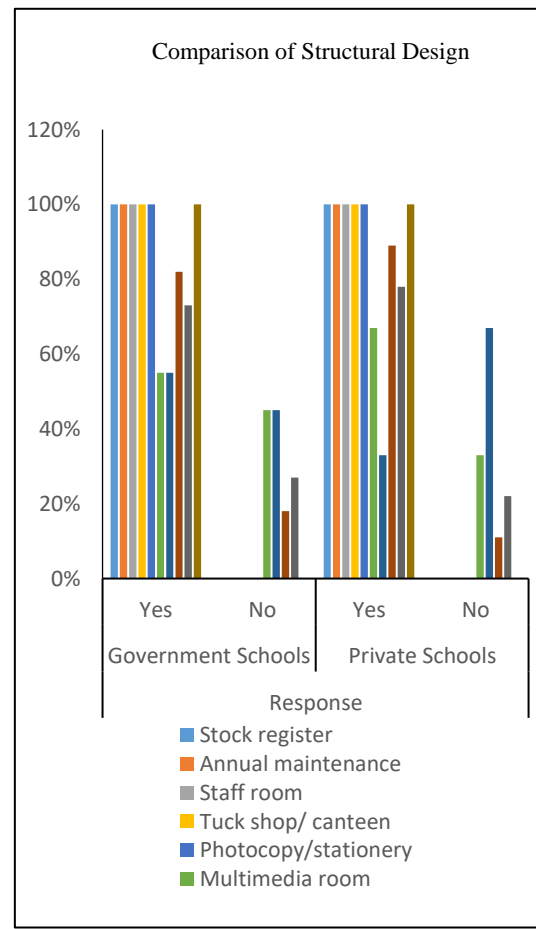
were also foolproof with installed CCTV cameras.

Figure 3.3.3 Comparison of laboratory availability between government and private schools;



The Figure 3.3.3 indicated the availability of laboratories of Physics, Chemistry, Biology and Computer at school. The bar chart shows the percentage of each response for every item of laboratories at government and private schools. It was observed that Public school were better in lab equipment as compare to private schools.

Figure 3.3.6 Comparison of structural design between government schools and Private Schools;

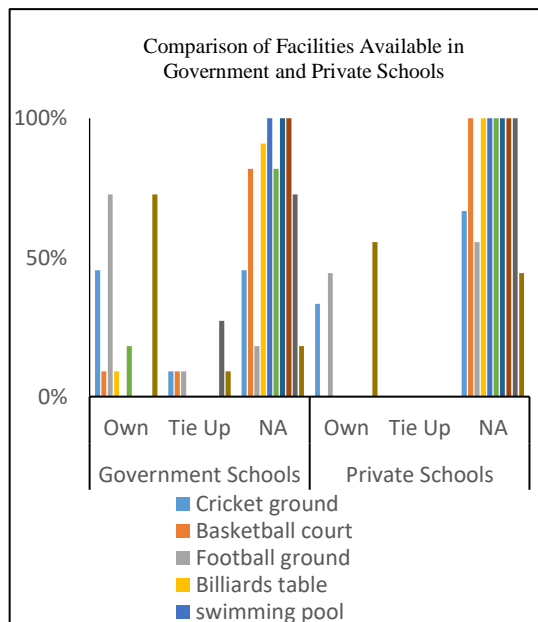


The Figure 3.3.6 showed that there was no statistical difference amid the vailability of inventory or stock register in schools as all the schools ensured its availability. The data expressed that all the private and government schools in Quetta were conducting maintenance on an annual basis. All the sample private and government schools positively responded to the availability of staff room for teachers, tuck shop or canteen and photocopy/print shop /stationary. Thus, it may be interpreted that none of the school teachers were suffering due to the unavailability of the staff room. And the students of these schools also having all the basic facilities at the premises of the school. It was observed that there was a significant difference between both groups of schools regarding IT

enable/multimedia room in school as 67% of private schools, in comparison with 55% of government schools were having this facility.

Additionally, the government schools (55%) were found better than private schools (33%) regarding the availability of playgrounds. The data in Figure 3.3.6 exhibited a slight difference between both groups of schools regarding the availability of storeroom for goods, separate rooms for non-teaching staff and examination halls.

Figure 3.4.1 Comparison of available facilities in government and private schools

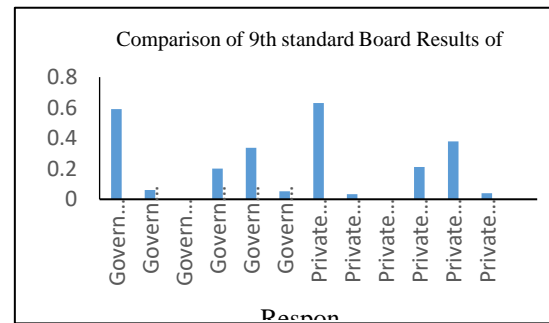


The Figure 3.4.1 depicted the distribution of different facilities related to sports in government and private schools and the average of each response. It was observed that government schools provided more facilities to the students than the private schools. Table 4.1 showed the mean score of government and private schools regarding the availability of facilities of sports in the sample schools. The table indicates that government schools have more facilities than private schools. Thus,

it was inferred that statistically there was a significant difference between government and private schools regarding the availability of facilities of sports.

3.5 Academic Achievement

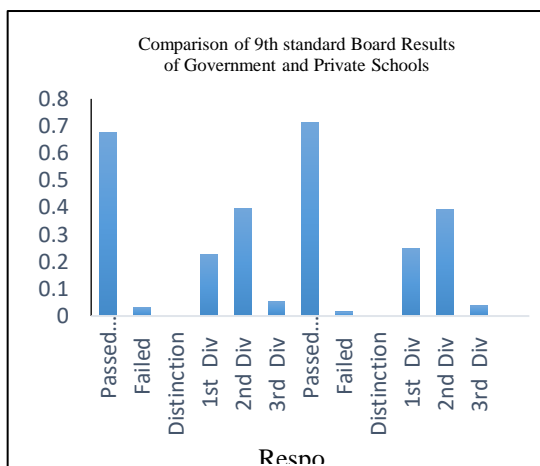
Figure 3.5.1 Comparison of last four years board results of sampled government and private schools for 9th standard;



The Figure 3.5.1 exhibited the academic achievements measured through the past four years of board results of the 9th and 10th standards. The data revealed the total number of students appeared, total passed and failed students, distinction, number of 1st, 2nd and 3rd division holder students from 2016 to 2019, and the average of each element for government and private schools in order to compare them. It was found that the average score of appeared students from government schools was higher than in private schools. It was inferred that more number of students appeared in 9th standard board examination from government schools than private schools. Additionally, the mean score of passed students at government schools was also greater than in private schools which may indicated that on average the more students from government schools cleared the examination as compared to the private schools. The average score of failed students in government schools was also higher than the private schools.

Additionally, more than half of the students from both groups of schools got 2nd division. According to the data, the government schools performed better than private schools as their average score was higher than private schools, but it might be due to the fact that more students appeared in the 9th standard board examination from government schools than private schools. According to the Bar chart from 2016 to 2019, private schools got a better results than government schools. However, on average, private schools showed better results than government schools with respect to passing the exams. Thus, it was inferred statistically that there was a significant difference between the results of the board examination of the 9th standard of government and private students regarding the number of passed students. Further, statistically, there was a significant difference between failed students of government and private students as less percentage of the total number of private school students were failed than government school students.

Figure 3.5.2 Comparison of last four years board results of sampled government and private schools for 10th standard;



The Figure 3.5.2 reported the data of the last four years of the selected populations of the government and private schools regarding the BISE Matric results. It was observed that the number of students who appeared in the 10th class board examination from government schools were parallel in grades to private schools.

Conclusion

This basic objective of this study was to compare the government and private schools of Quetta city on the bases of infrastructure of the schools, pedagogy and the educational achievements of the students. The research was randomly done in secondary schools of Quetta district. It was observed through the collected data from sample populations that all the participant of this study (both public and private school teachers) had five years greater experience of teaching and interestingly, more than 70% private school participants were having 21 years above experience. There were only 18% government teachers with higher education degree (M.Phil/MS) in comparison with none in private schools. However, it was encouraging that 82% government teachers and 66% private school teachers were professionally qualified.

The data revealed that the strength of the students was greater in government schools and each class with 5-6 sections of each class (18%). It was encouraging that the except a few teachers teaching traditional book method (only at government schools), most of the teachers were using avi-aids to help students learn in better way. However, the use of ICT was only in private schools.

Nadia, Ali et al (2020); Comparison of Infrastructure, Pedagogy and Academic Achievements of Public and Private Secondary Schools in Quetta District

The data exhibited a little difference between the government and private school teachers regarding the understanding of pedagogy. Thus, it was inferred that government schools' teachers were more focused on the understanding of pedagogy than the

private school teachers but the difference is little .

It was concluded that both the government and private schools of Quetta city were performing well. However, there is a lot of room for improvement for both types of schools to make the educational standard higher.

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