

Measuring the Impact of Using Library Resources: The Context of Secondary Students' Academic Achievement

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Abstract

This study aims to explore the effect of libraries resources, in the light of the history and background, on the student's academic performance. The reviewed literature states that students using library resources have greater efficiency and knowledge as compared to the students who do not use the libraries. Over the past twenty years, investigators all over the world have collected a significant amount of evidence pointing out that well-developed schools' library results in better academic performance of students. By reviewing deeply analysis the review of the literature that effective libraries of any academic institution has deep effects on pupil academic performance and due to these effects, the student can improve their ability to get better academic results. Many numbers of investigations analysis these matters adopting qualitative and quantitative method has been used. Most research studies show the point of views that libraries have a good effect and impact on a pupil school's performance.

Keywords: Academic Achievement, Library Resources, Secondary Students, Systematic Review

JEL Classification: I00, I23

INTRODUCTION

In the perspective through a school library, assistant and educator of the library are operated these days has completely changed the over the previous 20 years and or we can say over the 2 decades, besides the implementation to pupils, learning (Benjamin & McDevitt, 2018). It is very important to know that since many years in Pakistan especially in Karachi the trained librarians and trained teachers for the library program are not being hired or posted in the school or any college or any other institution also in the world so the readers are becoming less in all over the world. As we know that the improvement and other progress in computer technology have made a very rapid change and it also impacted on the library skill (Altman, 2017). Pakistan is a great case of reorganization that library makes a positive impact on students school performance and their school grade or CGPA, in the annual examination but it very vital and necessary to know that how to implement the current research study in Pakistan. It is also very important to know that the method or research study should be made so that it will mention showing the relationship and positive effect on student performance (Khan & Bhatti, 2012).

A modern computer link to the library resource and modern and classes and laboratories have better and deep, good effects and impact on pupils' examination and grade of class and position in the examination in term of CGPA in higher classes. In this study, we would like to study how a student or the students get the knowledge from the available resources of the library or

the libraries in an educational institution. It will also be explored that is there any impact or effect on students' academic performance. It is also debatable and worth researching question that is there need to examine which elements are involved in improving the performance of any student's academic performance. We see the lack of evidence about the related role of teacher and library trained staff (Mustafa & Ansari, 2012). It is also a major factor to guide the pupil in the right way that how to use the library. Following are the research questions to address:

- What are the impacts of the resources of the library on pupil academic performance in the content of the examination?
- What is the role of library resources on the academic performance of students in schools?
- How to determine and find evidence about the usage of resources of libraries to enhance the academic grade or CGP?

REVIEWED LITERATURE

The academic library can be explained in the word of association of college and research library. Generally, the system of the library at college consists of a cantered library of college and additionally branches of the main library (Strong, 2013). If a size of any academic library is very huge in number and have the material related to research work can be defined as a positive point of the library as the need of requirement of research material or research work the main library ire branch library can change. The research needs the

material related to the research work with the use of primary service. Because undergraduate pupil needs the material for their research work (Ahlfeld, 2019).

Public Library

From the olden time, it is practised that these libraries are freely open for the available people and society. This idea of the public library is upcoming from the year of the nineteenth century. But the law the wealth of people of any society school is utilized for the public library (Onyenachi, Akidi, & Onyekweodiri, 2015). The library is also providing unlimited books and research work and wide range research work material for the people who are disabled or suffering from any disability such as a hearing problem or blindness problem the services of the public library should be provided .in jails, hospital and in school, the services of the library would be provided if the population of a society is very high the services must be enlarged on a ground level the examples of this kind of problem are available in the world. In the U.S there is greatest city library of public and is supported by the wealth tax of public .and all the material and books and research techniques are being provided positively for research and the objective of a general study of books (Lee & Kim, 2012). In England, during one thousand eight hundred fifty “1850” the first public library was established and its main characteristics were that it was established by the help of public taxes.

School's Libraries

School's libraries are libraries under the boundaries of any school. Where pupil, a school teacher and even staff and sometimes mothers and father of pupil have easy access to the different kind of library resources (Subramaniam, Ahn, Fleischmann & Druin, 2012). The main purpose of school's library is to provide to all member of the institution to have equal reach “to the studies of books, and to internet access at any time during school timing, there is the main difference between the public library and a school library .school library mostly has the book and material according or related to the curriculum or course of study which is being taught in the school or any academic institution. The material or the book which is provided by a school's library can be considered as a bridge between student reading ability and his performance (Todd, 2015).

Special Libraries

As mention in the online libraries centre glossary, the definition has been defined “the libraries which are

part of any organizations, the groups or the companies. The special group gets their need from the special library (Hwang, 2011).

Mobile's Library Concept

In the remote area or fewer privilege areas, we see that there are a facility or reading a book or any research work resolves which help the pupil of school especially for the investigator or the scientific researches (Li, 2013). All though there is some kind of library that can be seen and found to some extent but not in every remote area. According to the definition of the mobile library” a big and large vehicle who have a large number of books and this kind of bus travel and give books to read to the people of this mall village or remote town as a loan with no changes or charge which is not noted able amount .it is called mobile book's libraries or mobile libraries which is specially created and decorated with new design and internet facility. For the usage of libraries, mobile services are provided by this kind of mobile library and can be connected to other traditional library and by this mobile library books can be transferred from one library to another library. As technology is growing the number of libraries user becoming less day by day (Saravani & Haddow, 2011). And by service of mobile libraries, we can increase the numbers of book, read and use of library resources. Mobile library service and other resources of the library or the material for example book for many subjects and research paper or thesis etc. and especially inter-facility and the audio and video facilities. It can be increased and decreased according to the population and the cover of where the mobile library is going to serve. The harper and brother published a travelling frontier during the eighteen thirty-nine “1839.”

Libraries with Information Technology

The internet libraries are in which internet and computers are used to save and store books, and article, thesis and another kind of reading materials. In these kinds of libraries, the facility of printing paper uploading and downloading is available. For the use of public and student of research work and there should nominal changes (Uddin & Hasan, 2013).

Personal Libraries

The private or personal libraries are that work under the ownerships of a single person. It is created and uses for a single person for a short group of people. From the personal libraries, the book is hardly landed to the people. It is maintained for the satisfaction of a single person (Krubu & Osawaru, 2011). There are

amount of books normally small in numbers. In private libraries, people use their stamps of the name of sticker or emboss some type signs. Some people allow other public to come in their private libraries for reading books or news's papers. Private or personal libraries can be sold or donated to other institutions (Lesk, 2012).

The student who work regularly at the library and use library and library resources they get a good result in examination and extraordinary performances. But these are more placed where pupil goes to read and write and get or their abilities of education create better impact the libraries play a major role on a single person, society and culture, which are far away from the boundaries. Spiritually and physical there is the impact of libraries (Stone & Berryman, 2014). Easy way to approach, the soft access for the new technology is a main factor and challenges. As the day by day technology is growing the importance of the use of the library is increasing. So if a student is given a guideline to go to the library he will get the better result. So, in the end, we can see the conclusion in all aspect that use of the library is beneficial for the student especially for the researcher (Mucnjak & Hebrang Grgic, 2012).

METHODOLOGY

Research procedures help the investigator that how we can put it in data analysing. In research design, we can manage the circumstance in which research average this work according to his or her comforts. It is said that education does not have its boundaries, everybody unintentionally doing research wither in doing social or physical experience, or practical's and want to get the realities and fact of research. In this following study evaluated the effect of libraries resourcing government secondary schools students' performance in regards to examination result or grade in New Karachi Town. In this research study, the mix research design has been used. First to get the knowledge about the research topic the qualitative method is used so that the data could be collected. Then the quantitative method as used for collecting data and to elaborate and give an explanation for the relationship in this user data. When any work is conducted we will have to use some skills and techniques. In the research study, we use research of cycle. First, we select the topic of the problem. Then we write the literature which is directly related to the study. At number there, we select the research strategy (Sarwar, Ahmad, & Hyder, 2017). Then the hypotheses are made and by dent of we collect data after these hypotheses are tested and in the end, we make a

conclusion and in the end, research writes a report. This is better using a research method which according to international level and prescribes by the APA. In this study, the investigator used the surrey.

Surry method is used for the descriptive research study. This method is used to analyze the single person and for the group. Due to the surrey method, we can secure evidence. Whenever the area is selected for the problem it plays a very virtual note and in effects on the research cycle. This research work is limited in the circle of Government Secondary School at New Karachi Town. The population is a set of factors which have similar characteristics explained by sample made by the investigator. We can define in other works that populations are a set of people who have single property. In this study, the 100 students of class IX and X and 10 teachers are included. Sampling is a king of procedure in which subset is taken from the subject which represents the whole populations. There should be a good size of samples good size of sample helps the investigator to analysis easily. The sample size must be a time saver and many savers. In observation, method data is collected according to how systematically selected how watched behaviours and record other detail about sample or object (Manzoor, Asim, & Sarwar, 2019). In research work, there are three common instruments which are following. There are many definitions for interview. It is a set of question which is used for collecting information by verbally and orally communication. In this study to the teacher were in interviewed.

Reliability can be defined as the frequent level of usage and the instrument degree of accuracy. If we get the same answer or result from the various type of respondent in a different way and different perspectives. In research, the various and the reliability should be defined and mention reliability defines the boundaries' in which similar answer can be gotten, by utilizing the same research instrument. If research increases the level of his research then this will be an obligation for another investigator to have the same result by using the similar instrument of study validity and reliability must be defined and it a necessary part of any research work. Validity can be measured in any research work by the points below.

1. Select of time duration must be chosen carefully
2. The right research design must be select the research topic
3. Sampling should be according to the research topic
4. The respondent should be in free and have the freedom to answer

5. Analysis of data collection is more important in all aspects of the research study

In this research work or study, the qualitative mythology was used but in some areas of study, the help of quantitative method was used for qualitative the interviews were conducted which help to analysis the matter of study. This is a very common and useful methodology which can be used to analyze the hypothesis and to analysis, my research works on the following of research. If we talk about the method is most powerful and effects positively. We will find that the chi-square is the best formula two analyses the relationship between the two variables. The chi-square formula is below.

$$\chi^2 = \sum \frac{(F_o - F_e)^2}{F_e}$$

Here

χ^2 = chi-square

F_o = frequency observed

F_e = frequency expected

\sum = frequency sum of.

Method of Percentage is used to find the percentage of collected data in the research work. The formula is below:

$$X = \frac{\sum x}{n} \times 100$$

Here

X = percentage

N = total number

X = number of responses collected

\sum = sum of

In this study, the percentage method is used to analyze the data.

RESULTS & FINDINGS

This research work was executed in the city of Karachi where the total size of the population was all Government school of in New Karachi Town. The total sample size was 100 students if class IX and class X and ten teachers and H.Ms that were selected randomly. Data collection is called the backbone or the brain of any research work. For any research problem, it is necessary to see all the aspect of data collection resources. After the setting of the resources of research, the data is collected. Data collection is necessary to mention any group and for any item. Data means any information about any problem. There are many ways to collect data in research. In this research

researcher collected was data using questionnaire and interview guide. In this analysis of data collected the researcher must tactfully analysis all the items. The investigator of this research study the given data is analysis with sound knowledge of percentage. At the end of each item, the result is explained by the description which consists of three to four lines or less.

Before the analysis of each item, it is discussed with the superior and under his direction, each item is examined. This is the obligation of a supervisor to guide the researcher. All the data which already collected by the survey was presented in tabulation format and by a graphical model which is culled bar chart. If we went to test the data and hypothesis which is related to these two. By the help of statistical analysis is examined that what are facts behind the data collection, real facts are or there are somethings extra. It is a precious task for the researches. Data is presented in a simple tabulation format which shows the frequency of data and its percentage. The statistical method is commonly used by every research. There many important and specific formulas are used to prove the hypothesis. Therefore the results which are obtained can be reliable and authentic. Every statistical formula haze its importance and impact.

Analysis of Students' Responses

The below-tabulated data and graphical presentation show 57 % of students strongly agree, 30 % of students agree and 10 % of students remained neutral while 3% strongly disagree that there is a library in the school. The below-tabulated data and graphical presentation show that 51 % students strongly agree, 24% agree, 21 % neutral, 01 % strongly disagree while 03 % remain to disagree that there are library resources physically available in their school. The below-tabulated data and graphical presentation show that 65 % students strongly agree, 10 % agree, 06 % neutral, 05 % strongly disagree while 14 % remain to disagree that there is library period in the school timetable. The below-tabulated data and graphical presentation show that 70 % students strongly agree, 21 % agree, 12 % neutral, 04 % strongly disagree while 03 % remain to disagree that they know the benefits of the use of library resources. The below-tabulated data and graphical presentation show that 60 % students strongly agree, 17 % agree, 16 % neutral, 04 % strongly disagree while 03 % remain to disagree that they have been given instructions about the use of library resources like internet search or borrow books.

The below tabulate data and graphical presentation shows that 12 % students strongly agree, 09 % agree, 00 % neutral, 59 % strongly disagree while 20 % remain to disagree that Books, newspaper and magazines available in my school library. The below-tabulated data and graphical presentation show that 19% students strongly agree, 07% agree, 64 % neutral, 04 % strongly disagree while 06 % remain to disagree that students eager to read books besides curriculum books. The below tabulate data and graphical presentation shows that 50% students strongly agree, 20 % agree, 03 % neutral, 10 % strongly disagree while 17% remain to disagree that the majority of students the competitions of quiz or speech are not held in school. The below tabulate data and graphical presentation shows that 85 % students strongly agree, 10 % agree, 00 % neutral, 00 % strongly disagree while 05 % remain to disagree that Teachers encourage them to read books, reference books and use library resources. The below tabulate data and graphical presentation shows that 80 % students strongly agree, 05 % agree, 04 % neutral, 06 % strongly disagree while 05 % remain to disagree that majority of students know the advantages of library books.

The below data table and the bar graph show that 60 % students strongly agree, 10 % agree, 20 % neutral, 20% strongly disagree while 08 % remain to disagree that majority of students use the library or any library resources when preparing notes for any subject. The below data table and the bar graph show that 05 % students strongly agree, 05 % agree, 10 % neutral, 20 % strongly disagree while 60 % remain to disagree that most of the students do not borrow books from the school library. The below data table and the bar graph show that 00% students strongly agree, 00 % agree, 04 % neutral, 90 % strongly disagree while 06 % remain to disagree that majority of students do not have a personal library. The above data table and the bar graph show that 10 % students strongly agree, 06 % agree, 30 % neutral, 50 % strongly disagree while 04 % remain to disagree that teachers do not guide the students about the effective use of library resources. The below data table and the bar graph show that 00 % students strongly agree, 00 % agree, 10 % neutral, 80 % strongly disagree while 10% remain to disagree that there is no trained library staff presents in my school library. The below data table and the bar graph show that 69 % students strongly agree, 22 % agree, 03 % neutral, 03 % strongly disagree while 03 % remain to disagree that they got low grade before using library resources. The below data table and the bar graph

show that 72 % students strongly agree, 10 % agree, 05 % neutral, 06 % strongly disagree while 07 % remain to disagree that they got better grade after using library resources.

The below data table and the bar graph show that 70 % students strongly agree, 10 % agree, 03 % neutral, 10% strongly disagree while 07 % remain to disagree that Library resources are beneficial for me to improve my grade in school. The below data table and the bar graph show that 00% students strongly agree, 00 % agree, 30 % neutral, 40 % strongly disagree while 30 % remain to disagree that they have internet in my school library. The below data table and the bar graph show that 05 % students strongly agree, 05 % agree, 11 % neutral, 60 % strongly disagree while 19 % remain to disagree that teachers introduce new books and library resources to me. The below data table and the bar graph show that 62 % students strongly agree, 10 % agree, 16 % neutral, 06 % strongly disagree while 06 % remain to disagree that library resources fulfil my educational objectives and requirement.

The below data table and the bar graph show that 75 % students strongly agree, 10 % agree, 05 % neutral, 05 % strongly disagree while 05 % remain to disagree that school library is the backbone of any educational institution. The below data table and the bar graph show that 80 % students strongly agree, 11 % agree, 04 % neutral, 03 % strongly disagree while 02 % remain to disagree that the use of library effect on my examination. The below data table and the bar graph show that 60 % students strongly agree, 20 % agree, 10 % neutral, 05 % strongly disagree while 05 % remain to disagree that the use of library resources are helpful to improve their GRADE or CGPA. The below data table and the bar graph show that 45 % students strongly agree, 30 % agree, 10 % neutral, 10 % strongly disagree while 05 % remain to disagree that use of the library is necessary for improving the educational system.

Items	5	4	3	2	1
Existence of library in School	57	30	10	3	0
Physical Availability of Library Resources	51	24	21	1	3
Library Period in Students' Timetable	65	10	6	5	14
Knowledge of Library Resources Benefits	70	21	12	4	3
Usage Instructions	60	17	16	4	3
Availability of Books, Newspaper and Magazines in Library	12	9	0	59	20
Eagerness to Read Books besides Curriculum Books	19	7	64	4	6
Various Competitions are Held in School	50	20	3	10	17
Encouraged By Teachers to Read Books, Reference Books and Use Library Resources	85	10	0	0	5
Awareness of the Advantages of Library Books	80	5	4	6	5
Using Library Resources to Prepare Important Notes	60	10	2	20	8
Borrowing Books from School Library	5	5	10	20	60
Having Personal Library	0	0	4	90	6
Teachers Guide about Effective Use of Library Resources	10	6	30	50	4
trained library staff	0	0	10	80	10
Low Grade before Using Library Resources	69	22	3	3	3
Grade after Using Library Resources	72	10	5	6	7

Library Resources are Beneficial to Improve Grade	70	10	3	10	7
Internet in School Library	0	0	30	40	30
Teachers Introduce New Books and Library Resources	5	5	11	60	19
Library Resources Fulfill Educational Objectives and Requirements	60	10	16	6	6
School Library is Back Bone of Educational Institution	75	10	5	5	5
Using Library Affects Examination	80	11	4	3	2
Library Resources are Helpful to Improve Grades	60	20	10	5	5
Using of Library is Necessary to Improve Educational System	45	30	10	10	5

Note: 1 is being the least level while 5 is the highest level of agreement

Discussion

It is necessary to mention the findings of the research study so the clear picture can be displayed to the entire readers and can help the other researcher to investigate further in the true and right way. It has been found from the data collection through field survey from the population and the sample for the research study, obviously, people like teacher, student, know the library's importance and its positive effects and impacts. Mostly the respondents were teacher-student and headteacher of school recognize well the use and importance of library resource and its impact on the students' academic achievement or the development in grade. It also observed that mostly the students who go to libraries and use the available resources they get better examination result in terms of better grade and CGPA. Unfortunately in public schools, the teachers do not take interest to motivate the students toward the use of library resources so that majority of student change their bent of mind and do not waste their time wandering here and there. In public schools of New Karachi Town, it is also observed that the books are old and not in proper order. Furniture of the library is uncomfortable an insufficient and cannot fulfil the need of the school students.

CONCLUSION & RECOMMENDATIONS

Many research on this topic "measuring the impact of library resources on students' academic achievement". It is a big challenge for school students that they go to the school library and spend their time to read books or other kinds of research material and use library resources. A large number of students do no willing to go study in the library and it results in their low grade. If a student goes to school library ultimately he uses the resources of the entire library and it impacts positively on students' academic achievement. It is said that learning is a continuous process it can be happened anywhere anytime and cannot be stopped. Nowadays the world has become a global village due to the internet so the library is a major element to connect the people easily round the clock. As the resources develop the grade of the students will be higher and it will impact positively on the school students. The role of a teacher in the use of library resources also plays a

major part in all this process of education because the library is a backbone of any educational institution. As much as the student give their time to the use of the library as they get a better result in the examination.

During the research work, it has been noticed that there are many aspects on which improvement is required there are so many points of views has been recorded throughout the research work on the related topic which is measuring the impact of library service on student's academic performance. It is also one major thing that there are so many problems and clear aspects have not been properly discussed in this research study. In this research work, the major focus was on how the student uses the library and the resources of any library of the school. The following are the few recommendations:

- New and modern computers are necessary for any good school library
- There should be new books for the students so that they make effective notes for their examination
- Trained staff is the backbone of any library.
- School teachers run the school library which is uncommon in the library system
- Library environment should be peaceful and interesting because it impacts on student academic achievement
- The step should be taken to develop an interest in the use of library resources among the students
- There are few very important elements for example issue of political influence, issue to manage library system, should be resolved
- Issue of academic elements, designing issues all these should be eliminated
- It is also recommended that the best academic achievement by the student where the trend staff are connected with the library system
- Design of the library structure and the books keeping is also played a major role to impact the performance of students learning in library surroundings and academic achievement
- The curriculum must be supported by the excellent books, materials and research papers
- There should be the connection among the libraries of the schools and other kinds of libraries particularly special libraries, libraries for public and moving libraries
- There should be internet connections in all libraries, especially in school libraries

- Government concerns and interest is also very necessary to develop the new school libraries in Karachi particularly in New Karachi town
- School funds must be increased to purchase new books, computers, Wi-Fi connections, library furniture, and other material which is related to the school library system

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