



Exploring the Relationship between Library Resources and Students' Academic Performance

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Affiliations ¹Lecturer in Sociology Govt Postgraduate College Mardan  https://orcid.org/0009-0005-6004-1554 ²M.Phil. Scholar, Department of Pakistan Studies Hazara University, Mansehra  https://orcid.org/0009-0001-6333-2307 ³ Ph.D. Scholar, Department of Sociology, Bacha Khan University, Charsadda  https://orcid.org/0009-0002-7652-5869 ⁴ Assistant Professor, Department of Social and Gender Studies, University of Swat, KP.  https://orcid.org/0000-0001-7542-4391	Abstract Libraries play a crucial role in supporting students' academics by granting them access to a variety of information and services to enhance their academic performance. This study aims to explore the impact of library resources on the college student's academic performance. This research targeted 1641 BS-level students enrolled in the spring semester of 2023. Employing a simple random sampling, a sample of 311 students was selected based on the Sekaran table (2003). Descriptive statistics indicated that students extensively utilized the library for studying, as reflected by a high mean score (M=2.93) for library utilization. Additionally, personal study environment (M=2.73), study habits, and resources (M=3.49) received notably high mean scores. Correlation results demonstrated a positive and significant relationship ($r=.576$, $p=.000$) between the library and student academic performance. Specifically, the correlation between student academic achievement and library use was found strongly significant ($r=.674$, $p=.000$), indicating a clear association between these variables. However, no significant correlation was observed between student academic performance and the personal study environment in this study ($r=.558$, $p=.021$). Conclusively, this research indicates that colleges ought to give precedence to digital library services and guarantee that learners have access to course-specific resources, thereby creating a basis for improving students' knowledge. Keywords: Library Resources, College Library, Academic Performance, Study Habits, Pakistan	
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Introduction

Students' academic success in higher education is closely linked to their access to resources and information in the modern, knowledge-driven society. Academic libraries offer a multitude of services to support students in their academic pursuits, making them vital hubs for learning and information (Hendrickson & Lee, 2018). A student's academic endeavors might benefit from the wealth of information found in an academic library, which includes books, magazines, newspapers, journals, and digital resources. All of these resources from the library offer a wealth of information that students can utilize for their study and education. In addition to more modern products like academic journals, magazines, newspapers, and digital resources like online databases and e-books, this wide selection also offers more traditional items like books, textbooks, and reference materials. According to Wang and Shieh (2022), they function similarly to tools that students can use to support their academic studies, learn new things, and discover answers to queries. The role that academic libraries play in helping educational institutions achieve academic greatness highlights how important they are as a crucial part of a complete academic environment. Recognizing its significance, the academic library is deemed crucial for the holistic functioning of academic institutions. Its impact on academic achievement is evident as it actively supports various educational programs and cultivates students' information location and utilization skills. Beyond academic pursuits, the academic library contributes to the lifelong learning skills of students, fostering their interest and creativity, thereby empowering them to thrive as responsible citizens. Librarians and library staff, through their assistance, facilitate students in accessing and utilizing high-quality information and resources, enriching their study experiences and fortifying their learning. Students frequently visit the library to ascertain the availability of scholarly sources and reference materials, as noted by Kuh and Gonyea (2003). The purpose of these visits is twofold: to fulfill information needs for general

reading or research requirements. Furthermore, libraries are acknowledged as the central community hub within academic institutions. Serving as a hub, the academic library provides an inclusive avenue for information access, supporting students in their daily academic endeavors, whether for academic success, problem-solving, or the creation of new knowledge. It offers a dual role as both a quiet and social space for meetings and study, providing essential support services and circulating materials that aid in academic study (Verma, 2023). With the rapid advancements and transformation in the landscape of libraries, the role of libraries in supporting students' academic achievement has evolved beyond traditional book collections. Libraries now serve as multifaceted learning centers, integrating technology, collaborative spaces, and diverse resources to meet the evolving needs of students. Because of the above-mentioned services, the prime objective of this study was to evaluate the impact of library resources on college student's academic performance in GPGC Mardan.

Literature Review

Research conducted on the relationship between library use and student success. They found that library use was positively associated with student GPA, credits completed, and graduation rates. They also found that library use was associated with increased student satisfaction with their education. The researchers analyzed 25 studies that included data on over 100,000 students. Researchers discovered a correlation between library use and increases in GPA (0.10, 0.15, and 0.20), as well as in completed credits and graduation rates (0.9). (Dempsey & Van Fleet, 2015) They recommended that libraries try to boost the number of students using their services. An approach known as questionnaire distribution was used in the research project by Larson and Owusu (2012) to collect information from library patrons. As a measure of the community's positive reaction, the study's results show that a sizable majority of users reported pleasure with the library's services. A larger library budget is suggested by the study

to better serve the demands of its patrons. To improve the service even further, patrons recommended adding more amenities and expanding the library's hours of operation.

A significant portion of respondents in a different survey by Pandey and Singh reported satisfaction with the resources and services provided by libraries. It was observed that books were the most frequently used resource and that users favored the circulation service. To achieve more effective use, respondents offered insightful recommendations on how to improve the efficiency of library resources and services. The critical role of library staff assistance was emphasized, acknowledging its pivotal contribution in facilitating students' access to and utilization of library services and resources, thereby meeting their information needs effectively (Pandey & Singh, 2014). Breed and Treadwell (2010), in their literature review on the correlation between library use and student success, identified several positive associations. They observed that library use exhibited a positive relationship with student GPA, credits completed, and graduation rates, along with an increased satisfaction with their educational experience. The study outlined four main ways that library use helps students succeed. Firstly, it gives them access to a wide range of information resources, such as books, journals, databases, and other materials, which improves their writing, comprehension, and critical thinking skills. Second, by providing guidance and support services like research aid, reference assistance, and tutoring, students will be able to identify and evaluate material, correctly cite sources, and write excellent research papers. Thirdly, by creating a peaceful and comfortable study space, instructors may support their students in staying focused and avoiding distractions. Finally, libraries contribute to fostering a sense of community, which proves beneficial for students experiencing feelings of isolation or homesickness. In conclusion, the authors assert that the utilization of library resources positively impacts student success. They suggested that libraries should make efforts to increase student library use. Soria, Fransen, and

Nackerud (2022) observed a growing focus in the last two decades on examining the influence of libraries on students' acquisition of information literacy skills and the development of critical thinking abilities. Building on this perspective, Hunter (1999) asserts that consistent and sufficient utilization of the library can significantly contribute to heightened academic achievement among students. It is reasonable to contend that students who make frequent visits to the library are likely to encounter a broader spectrum of information compared to their counterparts who do not engage with library resources. Echoing a similar sentiment, Anyadike (2000) established a correlation between library usage and students' academic performance. His study disclosed that students tend to achieve better academic outcomes when they regularly utilize the library compared to those who do not engage with its resources.

Materials and Methods

This research was conducted at the Government Postgraduate College in Mardan, Khyber Pakhtunkhwa, employing a survey design. The study targeted the BS-level students, totaling 1641, enrolled during the spring semester of 2023. Following the guidelines of the Sekaran Table (2003), a sample size of 311 students was chosen using a simple random sampling technique, ensuring an unbiased selection of respondents. To assess library resources and students' academic performance, the researcher developed a survey questionnaire divided into two sections. The first section gathered personal information, while the second section comprised twenty-one questions with a response-based rating scale ranging from Strongly Disagree (SD) to Strongly Agree (SA). The distribution of the questionnaire occurred within the students' respective departments. Quantitative data collected underwent analysis using descriptive statistics, including frequency count and percentages. The Statistical Package for Social Science facilitated score coding, and Pearson Correlation was employed to explore relationships between variables in the study.

Results

Table 1. *Demographic Information*

Variables		F (n=311)	%
Gender	Male	280	90
	Female	31	10
	Other	0	0
Age	>20	40	13
	21-25	150	48
	26-30	121	39
	Above 30	0	0
Study Discipline	Science	101	32
	Arts	210	68
	Other	0	0
Current semester of study	(2nd)	85	27
	(4th)	120	39
	(6th)	75	24
	(8th)	31	10
Previous semester's GPA/percentage?	>2	45	14
	>2.5	65	21
	>3.00	110	35
	>3.5	55	19
	>4.00	34	11
Membership in the college library	Yes	185	60
	No	55	18
	Applied	71	22
Member of the college study circle	Yes	58	19
	No	150	48
	Applied	103	33
Frequently do you visit the library	Multiple times a week	80	27
	Once a week	70	22
	Once a month	75	24
	Rarely	60	19
	Never	26	08
	On average, how much time do you spend in the library during each visit?		
	>30 minutes	55	18
	30 minutes to 1 Hrs	80	26
	1-2 Hrs	105	34
	2-4 Hrs	50	16
	More than 4 Hrs	21	08
Are you available and have access to a digital library in the college	Yes	0	0
	No	311	100

Table 1 shows the demographic information of the respondents; 90% of the respondents were male while 10% were female students. In the age group, 48% were from (the 21-25) age group and the majority 68% were from the Arts group. In the current semester of the study, 39% of students from the 4th semester and the

majority 35% got less than a 3.00 GPA in the previous semester. In the membership of the college library, the majority 60% of students had membership while in the college study circle, the majority 48% were not members of the study circle. Asking the question about the frequency of the visits to the library majority

27% of students visited the library multiple times a week while spending time in a library per visit, the majority 34% of students spent 1

to 2 hours during each visit and a majority of the student haven't available and access to digital library in the college.

Table 2. Mean and Standard Deviation of the Variables

Variable	Mean±S.D
Library usage	
Library resources provided by the college	2.56±0.835
Any improvement in your academic performance since using the library	3.68±0.823
Academic performance is negatively affected by barriers to accessing the library	2.49±0.871
Library resources support your academic needs	3.40±0.589
Seek assistance from library staff for your academic needs	2.67±0.866
Experienced difficulty in accessing library resources	2.43±0.899
The library resources you need are unavailable	3.34±1.034
Total	2.93±10.685

Table 2 contains descriptive statistics that showcase three separate variables through individual items associated with library resources. Students frequently used the library as a study resource based on the results showing a high mean score of 2.93. The high assessment score indicates students depend heavily on library facilities because these resources support their academic performance. Similar to previous scholarly works Breed & Treadwell (2010) have underscored that academic achievement directly relates to how often students use the library. The frequent usage of library facilities by students leads to

better study habits because they get access to diverse reading materials as well as digital research platforms. Equipped library facilities create optimal study settings which reduce learning hindrances and promote students to study without interruptions. Academic institutions must keep improving their library services to provide unhampered physical and digital resource access because students use the libraries extensively. The academic performance of students can be enhanced through longer library operation hours combined with integrating contemporary technological facilities.

Table 2.1. Mean and Standard Deviation of the Variables

Study Habits and Resources	Mean±S.D
Use library resources (books, journals, online databases, etc.)	3.09±0.860
Prefer studying alone	3.29±0.579
The availability of study spaces in the library is suitable	1.79±0.758
Participate in library-based activities or workshops aimed at enhancing your academic performance	2.66±0.666
Engage in studying outside of class hours	3.89±0.759
Digital resources (e.g., online articles, educational websites) for studying	2.80±0.731
Help from external sources (e.g., tutoring services, classmates) when studying	2.70±0.466
Time management when planning your study schedule	2.77±0.878
Total	3.49±0.676

Table 2.1 shows descriptive statistics for the items related to study habits and resources. The study habits and resources received a remarkably high mean score ($M=3.49$), underscoring the significance of effective study practices and resource utilization in students'

academic endeavors. This aligns with the findings of Pandey and Singh's study (Pandey & Singh, 2014), which emphasized the importance of study habits in boosting library efficacy and highlighted respondents' satisfaction with resources and services.

Table 2.2. Mean and Standard Deviation of the Variables

Personal Study Environment	Mean±S.D
Comfortable in your study area in terms of seating and arrangements	2.78±0.821
Manage interruptions or disruptions in your study	2.43±0.533
Concentrate and study in the library compared to other environments	2.23±0.822
Access to a quiet study space at the library	2.55±0.877
Satisfied with your current study environment in terms of supporting your learning and productivity	2.66±1.054
Library resources have a positive impact on college students' academic performance	3.77±0.834
Total	2.73±0.153

Table 2.2 shows descriptive statistics for the personal study environment. The personal study environment variable received a high mean score ($M=2.73$), highlighting the significance of a favorable study environment. This aligns with research that highlights the significance of a

peaceful and encouraging study area for achieving academic achievement (Soria et al., 2017). In general, descriptive statistics offer significant perspectives on the complex influence of library resources on students' educational journeys.

Table 3. Pearson's Correlation Analysis of Variables

Independent Variables (Indexed Values)		Dependent Variables (Indexed Values)
Library Resources	Library usage	Students' Academic Performance
	$r = .674$ $p = .000^*$	
	Study Habits and Resources	
	$r = .619$ $p = .000^*$	
	Personal Study Environment	
	$r = .558$ $p = .021$	
The study's independent and dependent variable correlation is shown in Table 3. The entire amount of time students spends in the library and their academic achievement are positively and significantly correlated ($r=.576$, $p=.000$), according to the findings. The results of earlier research, including those by Brown and Malenfant (2018a) and Soria et al. (2022), which showed a positive association between students' GPAs and library resource consumption, are consistent with this. A positive and substantial correlation ($r=.674$, $p=.000$) was found between academic		performance and library utilization when the experiment was extended to examine particular associations. In a similar vein, the research discovered that the dependent variable and study practices and resources showed a positive and significant link. This result supports the findings of Ayodele (2000) and Awoyinfa (2001), who found that students who had good study habits and library utilization had higher academic achievement. Yet, in this specific study, there was no discernible correlation between student academic achievement and the personal study environment ($r=.558$, $p=.021$).

Research by Kuh and Gonyea (2003) indicates that a helpful study environment positively adds to student engagement and success, however, it is not specifically discussed here.

Discussion

This research aimed to investigate the relationship between library resource utilization and the academic performance of college students. The study's demographic profile revealed that 90% of respondents were male, 10% were female, and 48% fell within the (21-25) age group. Regarding library membership, a majority (60%) of students held membership, and 27% visited the library multiple times a week. The study explored library utilization, evaluating various services offered by libraries and their effectiveness in enhancing students' educational outcomes. The mean scores for library usage ($M=2.93$), study habits and resources ($M=3.49$), and personal study environment ($M=2.73$) reflected students' perceptions of these variables. Students often perceive libraries primarily as places to borrow books and read textbooks, overlooking the rich content available. Despite the limited use of library resources, users continue to trust libraries as reliable sources of academic information. Findings indicated that students who solely utilized library sources ($M=3.09$) and confined themselves to course-related materials showed a positive correlation with academic performance. The correlation analysis revealed a significant positive relationship ($r=.576$, $p=.000$) between overall library usage and student academic performance, consistent with previous studies (Brown & Malenfant, 2018a; Soria et al., 2013). Additionally, a positive and significant relationship ($r=.674$, $p=.000$) was found between library usage and academic performance, supported by literature emphasizing the influential role of library usage in students' learning (Montgomery, 2014; Allison, 2015; Gaha, Hinnefeld & Pellegrino, 2018).

The study also found a positive and significant relationship between study habits and resources and academic performance. This finding aligns with Ayodele (2000) and Awoyinfa (2001), who reported improved academic achievement

among students with strong study habits and library usage. However, critics like Eyo (2001) argue that academic success is not universally tied to study habits, emphasizing the multifaceted nature of factors influencing academic achievement. In contrast, personal study environment showed no significant relationship ($r=.558$, $p=.021$) with student academic performance, underscoring the myriad factors affecting academic achievement, including home environment, personal interest, and peer interactions (Mangle, 2011; Parveen, 2007; Muola, 2010).

Conclusion

The primary objective of any library is to furnish pertinent and current materials to meet the informational requirements of its users. In particular, academic libraries are vital to the institutions they support. The study's findings unequivocally demonstrate a significant correlation between students' academic success and library utilization. Additionally, it highlights that study practices and available materials might influence how frequently students visit the library, which can improve their academic performance. The findings suggest that regular library use and the crucial role that study habits and resources play have a considerable impact on students' academic achievement. The results of this study imply that frequent library visits and the formation of fruitful study habits can both significantly improve academic performance. Furthermore, the research suggests specific actions to enhance academic achievement. It is recommended that students form effective study habits and visit the library frequently. Additionally, it recommends that academic institutions and government agencies take the lead in offering digital library services and supplying students with course-related materials to promote improved academic achievement. The academic performance of students will improve when students visit the library often alongside institutions organizing study workshops and funding digital resources. collages need to work together with their faculty members to deliver appropriate educational resources alongside improvements

to library facilities and assignment integration within the library system. Besides, several research limitations exist due to the choice of studying one institution along with depending on self-reported data and failing to examine results over time. Therefore, future studies must evaluate institutions across multiple campuses

while performing long-term assessments to determine digital library effects on academic performance. Further understanding can be gained through the evaluation of library-initiated study workshops together with librarian-led instructions.

Declaration Statement

It is certified that this manuscript has not been submitted or published in any other journal.

Conflict of Interests Statement

The authors showed no conflict of interest.

Author's Contributions

Dr. Abid Ali: Conceptualization (equal), Methodology (equal), Quantitative Analysis, Writing–original draft, Writing –review & editing

Rafeeudin: Conceptualization (equal), Methodology (equal), Quantitative Analysis, Writing –review & editing

Imran Khan: Conceptualization (equal), Methodology (equal), Quantitative Analysis, Writing –review & editing

Dr. Ihsan ullah khan: Conceptualization (equal), Methodology (equal), Quantitative Analysis, Writing –review & editing

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