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RESEARCH PAPER

Impact of Self-Motivation on the Academic Performance of University Students: A Comparative Study of Male and Female Students of University of Education D. G. Khan Campus

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ABSTRACT

The paper aims to investigate how differently self-motivation affects the academic performance of male and female students at university level. In the view of said aim of the study, BS- level male and female students from four Natural Sciences departments of the University of Education Lahore, D. G. Khan Campus were selected for data collection purpose. In order to measure self-motivation, a questionnaire was crafted and to gather academic performance data, academic results of the students were attained from the exam coordinator for the running semester. The findings indicated that female students exhibited higher levels of self-motivation as compared to their male counterparts, but there was no discernible difference gap in academic performance. As a recommendation, it was proposed that the university's management introduce initiatives to familiarize students and teachers with self-motivation, enhancing their abilities in goal setting, performance evaluation, and planning. Additionally, the suggestion included the implementation of awareness campaigns and frequent group discussions focused on improving self-motivation abilities.

| **Keywords:** | Academic Performance, Self-Motivation, Undergraduate University Students |

Introduction

The Educational success is a primary focus for parents, teachers, students, and other involved parties within their respective domains. In intentional approaches, self-motivation encompasses factors that contribute to more effective learning, influencing outcomes in either a negative or positive way. These methods assist students in acquiring academic skills, including the development and implementation of strategies, goal establishment, and self-assessment. Self-motivation is a pivotal factor that influences students' academic performance.

The process by which students undergo positive behavioral changes driven by internal satisfaction is referred to as self-motivation (Ryan &Deci, 2000). Self-motivation is closely interconnected with various educational and psychological ideas, encompassing interests, attention, and goals. Given the rapid advancement of knowledge and technology, self-motivation becomes imperative for students to take charge of their learning, acquiring skills through self-directed or other customized learning methods. This approach not only fosters personal development but also contributes to the planning and advancement of the educational system.

As indicated in research conducted by Stipek et al. (2018), students consistently opt for challenging tasks with intrinsic motivation. With real-life experiences, they integrate their academic knowledge, persist in learning independently, and actively seek clarification through frequent questioning to enhance comprehension. Gaining self-motivation involves

reading books, as highlighted in another aspect of this process. In their research, Esteban et al. (2010) found that children's enhanced understanding, particularly in social contexts, is enhanced by well-organized texts rich in examples of self-motivation. Harrison and Muthivhi (2013) suggest that play activities help children purportedly regulate their behavior.

Self-motivation levels frequently vary between females and males across diverse educational programs and environments. As per Pomerantz et al. (2002), they suggest that females typically set elevated standards and engage in critical self-evaluation in academic settings. In a 2007 study by Narayanan's examination of gender disparities across various university subjects, it was discovered that girls tend to demonstrate higher levels of self-motivation compared to boys, specifically in the context of learning English.

Literature Review

As per Sari (2017), individuals' behavior is significantly affected by their motivation when they engage in actions aimed at achieving specific goals. Awofala et al. (2020) posit that intrinsic motivation is frequently the result of a student's inherent aspiration for excellence in academic performance. Begum Farjana (2022), within the context of schools in Bangladesh, investigated students' learning motivation and its potential role as a predictor of their learning strategies. The results indicate that when implementing learning strategies, teachers should give significant attention to factors such as self-efficacy, motivation, and encompassing control over learning beliefs. Al-Khatib (2010) performed a study with 434 university pupils from the United Arab Emirates, and it was discovered that learning self-motivation is a significant factor in raising academic achievement.

The link between self-motivation among Uni SZA students and their academic success was investigated in Muhammad and Abu-Baker's (2015) study. They found a significant positive association between self-motivation and academic success across all academic fields. In order to investigate the effect of using self-motivation abilities on academic success in particular disciplines, Bail et al. (2008) conducted an experimental study. One hundred forty-seven individuals were chosen as a sample from of the University of Hawaii in the U.S. Seventy-nine students made choose the experimental group, which received instruction in a self-motivated learning program while the treatment group, as normal, received no instruction at all. Their study's findings were astounding. The study's results revealed that the experimental group's pupils who improved their self-motivation skills outperformed the students in the control group in terms of academic achievement.

Gender-based variations in academic self-efficacy were examined by Nair (2023), and determined that there is no noteworthy difference in the scores of academic self-efficacy between genders. In contrast, Schatt (2011) discovered that in instrumental musical practice within the music subject, female students excel, and this skill is notably associated with their intrinsic motivational beliefs. Shanker (2014) asserts that self-motivated students demonstrate enhanced abilities to manage external distractions, modify their emotions, pay attention, and consideration, engage in analysis, and adapt focus when needed. Saeid and Eslaminejad (2016) found a relationship between students' readiness for self-directed learning and their academic self-efficacy and accomplishment motivation. The goals of self-directed learning readiness are to broaden and improve pupils' learning experiences. A key objective of advanced education is this. They analysis interprets and makes sense to 322 bachelor students from Payamnoor University in Rafsanjani who were chosen in the academic year 2014–2015 using straightforward random sampling. The T-test, variance analysis, multiple regression, and basic regression were all used. This study found a substantial relationship between students' readiness for self-directed learning, students' self-efficacy and academic motivation.

Adamma et al. (2018) looked into how intrinsic and extrinsic motivation affected students' academic success in mathematics. The investigation was done using a descriptive methodology. Through Owerri Education Zone of Imo State, a sample size of 200 primary six students was chosen for the research. The selection method was simple random. Using SPSS, the produced data was examined. The hypotheses were tested using inferential statistics with a 0.05 threshold of significance for the t-test and Pearson Product - moment Correlation. According to the study's findings, academic success among students is improved by motivation, and there are differences in these outcomes by gender. Alotaibi et al. (2017) investigated the link between community college students' self-motivated learning and scholastic success at King Saud University. A preparatory year program was attended by 356 pupils who made up the study's sample. The findings showed a significant and favorable connection between student's academic success and self-motivated learning. Goal orientation and planning, in particular, were discovered to be important indicators of academic success, as were SM and its constructs. According to the study's results, academic success is significantly influenced by SML.

In Pakistan, comprehensive research exploring the self-motivation (SM) of university students and its influence on their academic performance is lacking. Recognising this gap, I have chosen to investigate the issue of self-motivation among Pakistani university students. Parents, teachers, and other stakeholders hold relevance to the study's outcomes in addition to researchers. Moreover, the practical suggestions derived from the study's findings have the benefit of improving the teaching community.

Hypotheses

The study established the following null hypotheses to be tested:

H01: There is no significant distinction in self-motivation among female and male students at the undergraduate (BS) level.

H02: There is no significant difference in academic performance among female and male students at the undergraduate (BS) level.

Material and Methods

A descriptive testing methodology was used to investigate the gender disparities in self-motivation and academic performance among university students. Descriptive research design is a sort of research design that tries to systematically acquire data to characterize a phenomenon, circumstance, or population that is being examined, according to Mugenda, (2003) and Siedlecki, (2020). The analysis also involved comparing various respondent categories. As per Azarian (2011), comparison is an inherent and essential mental function, allowing individuals to assess both similarities and differences in various ways.

Because the current research was quantitative, a questionnaire was used as a tool for gathering data. The questionnaire was designed to assess self-motivation, while internal exam coordinators were contacted by heads or chairs of relevant departments for the goal of gathering information of pupils' academic achievement. They received a Performa with data on the sampled students' results from the previous term.

Population

The study's target population was undergraduate students at the University of Education D. G. Khan Campus who are enrolled in four natural science departments (Physics, Botany, Chemistry, Zoology). According to the list downloaded from university of education website, 593 students were part of the BS programs (Natural Science) at the University of Education D. G. Khan campus during the academic sessions from 2019 to 2023.

Table: 1
Table showing the detail of the Population

Program Name	Male Students	Female Students	Total
BS Physics	84	42	126
BS Botany	63	91	154
BS Chemistry	77	95	172
BS Zoology	82	59	141
Total	306	287	593

Sample

A simple random sampling technique was used, 317 undergraduate students (159 males and 158 females) were chosen as a representative sample from the overall population. After consulting the research advisory table established by Krejcie and Morgan (1970), the adequacy of the sample size was confirmed. So the sample size for this study was 317 undergraduate students from UE D G Khan Campus.

Table 2
Table showing the detail of the Sample

Departments	Male students	Female students	Total
Physics	53	20	73
Botany	36	45	81
Chemistry	37	49	86
Zoology	33	44	77
Total	159	158	317

Research Instrument

As a research instrument, a self developed questionnaire encompassing information on diverse aspects of students' self-motivation and academic performance was developed. Through the exam coordinator, randomly chosen respondents provided their current semester results for the academic performance assessment. A self-developed questionnaire was filled from natural science department at the University of Education Lahore, Dera Ghazi Khan Campus. Three hundred seventeen (317) students of natural science departments from D.G. Khan Campus of University of education received the questionnaires. With the help of friends and personal visits, the questionnaires were distributed.

Table: 3
Five point likert scale responses codes

Sr. no	Response	Code
1	Strongly Agree	(5)
2	Agree	(4)
3	Undecided	(3)
4	Disagree	(2)
5	Strongly Disagree	(1)

Validity and Reliability of the Instrument

The supervisor oversaw the preparation and finalization of the research tool, which was then sent to education experts for validation. Principals and D. G. Khan's SSS (Senior Subject Specialist) additionally discussed the questionnaires. Some required changes to the questionnaire were made after discussion with the supervisor.

However, 45 pupils were used in a pilot test to determine the instrument's reliability. Based on the results of the pilot testing, reliability was determined. Through SPSS version

20, Cronbach's Alpha was used to calculate the reliability rate. George & Mallery (2003) provided the following rule of thumb regarding Alpha score in order to understand it:

Alpha scores less than 0.5 are regarded as reject able
Alpha scores greater than 0.5 are regarded as poor
Alpha scores greater than 0.6 are regarded as uncertain able
Alpha scores greater than 0.7 are regarded as acceptable
Alpha scores greater than 0.8 are regarded as good
Alpha scores greater than 0.9 are regarded as an excellent

The instrument's alpha value was 0.823, which is good.

Before and during the study, the researcher made an effort to maintain ethics.

- The questionnaire did not contain any exploitative questions or items.
- It was assured to the respondents that their identities would never be made public.
- Regarding the respondents' time commitment, the instrument was adequate.
- Only a little amount of confidential data—which was required for research—was demanded.

Data Analysis

The interpretation of data from a particular sample is mentioned in descriptive analysis. Using SPSS version 20.0, the data was examined. The data obtained from the questionnaire was analyzed using the mean, standard deviation, frequency, T-test, and ANOVA. The data were divided into the following sectors to allow for a focused analysis.

1. Students Self-Motivation scale
2. Students' Academic Performance

Table 4
Departments wise distribution of respondents

Departments	Male students	Female students	Total
Physics	53	20	73
Botany	36	45	81
Chemistry	37	49	86
Zoology	33	44	77
Total	159	158	317

Table 5
Testing Hypothesis H01

Gender / Group	N	Mean	S.D	T	P
Male (M)	159	173.12	26.69		
				3.79	0.001
Female (F)	158	184.06	24.83		

Ho1: Hypothesis (H01) was rejected. Female respondents mean score (184.06), was > than that of male students (173.12), as indicated in Table 5. A significant difference is evident (t = 3.79 and p < 0.05).

Table 6
Testing Hypothesis Ho2

Gender	N	Mean	S.D	T	P
Male (M)	159	165.22	23.41		
				3.21	0.101
Female (F)	158	174.01	25.37		

Ho2: Hypothesis (H02) was rejected. Female respondents mean score (174.01), was > than that of male students (165.22), as indicated in Table 6. A significant difference is evident (t = 3.21 and p < 0.05).

Conclusion

Students who possess self-motivation demonstrate effective learning strategies, such as establishing an appropriate environment and selecting appropriate times for studying. They engage with learning materials within context while focusing on essential concepts. Various manifestations of self-motivation contribute to enhanced learning outcomes and academic success (Goetz, Nett, & Hall, 2013). Essentially, students who have developed self-motivation consistently outperform their counterparts with lower levels of self-motivation in educational settings. Self-motivated students often formulate a clear representation of their learning goals prior to commencing their academic tasks.

While there were notable gender differences in academic performance, the research findings indicate that female students with a higher level of SM had higher academic scores as compared to male students with lower SM and academic scores. The whole it was concluded that student's self-motivation has positive impact on university students academic performance, however, a student's academic performance is also affected by their gender. Female students are more self-motivated than male students at the university level. Mecca and Holt's study in 1993 revealed that girls tend to exhibit higher levels of self-motivation compared to boys. This study holds practical implications for university educators, suggesting the implementation of self-motivational strategies during instructional sessions. In order to enhance their academic performance and motivate their children, parents can also engage in various programmes.

Recommendations

The following recommendations emerged from the findings and conclusions of this study, and they are as follows:

  i.   The university should be introduced self-motivation for both students and teachers, to enhance their capabilities in terms of performance assessment, planning, and goal setting.

 ii.   Head of Departments should be establishing regular group discussions and awareness campaigns focusing on study techniques and self-motivation skills.

iii.   The University should be organized seminars and interactive sessions as measures to build confidence, aiming to enhance the self-motivation of university students.

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