

# Evaluation of students' Engagement and Academic Achievement at University Level

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## ABSTRACT

The effectiveness of an educational organization depends highly on the performance of its students and teachers. Study was intended to find out the relationship of academic engagement and academic achievement of university students and compare the level of engagement of university students. A questionnaire was adapted for measuring students' academic engagement from National survey of student engagement (NSSE, 2019). Total 400 respondents of social sciences and physical sciences students from different departments of university of Sargodha were selected as sample of the study through convenient sampling technique. Data were analyzed through SPSS. Pearson Product-Moment Correlation was computed in order to determine the relationship between student engagement and academic achievement. Results showed that a positive relationship was found between student engagement and academic achievement of university students. Moreover, it is indicated that insignificant difference was found in the academic engagement of students of faculty of physical sciences and faculty of social sciences.

## KEYWORDS

Engagement, Academic achievement, Students, University.

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## INTRODUCTION

Academic engagement is depending upon a variety of elements, including the learner's personal traits, the teacher, the teaching method, peers, and other characteristics of the learning environment (Amerstorfer & Kistner, 2021). According to Martin et al (2021), Academic engagement refers to a psychological condition in which students feel a sense of belonging, attributing value to education, and actively participate in learning and extracurricular activities. Academic engagement is characterized by vigor (referring to the student's energy, willingness and persistence in attempting to complete school activities), dedication (referring to the student's sense of enthusiasm, inspiration, pride and importance) and absorption (related to full concentration without effort and intrinsic enjoyment in academic demands so that time seems to pass quickly and it is hard to detach oneself from activities).

According to Kim, H.J., (2019), student engagement was investigated through the lens of two critical components: class engagement and campus engagement, as well as six dimensions: Cognitive Engagement, Sense of Belonging, Peer Relationships, Faculty Member Relationships, and Behavioral Engagement and Fulfillment.

Academic achievement has long been considered a critical outcome of student engagement. While extensive empirical study has been conducted on the relationship between the two, the findings have been conflicting thus far (Lei et al., 2018). This relationship is viewed from two distinct angles. For instance, Zhu (2019) discovered a large and reasonably high association between student involvement and academic achievement, whereas King (2015) discovered a favorable correlation between academic achievement and behavioral and emotional engagement. Academic achievement, as measured by a student's GPA as a result of their university experiences, is a frequently used criterion for evaluating the benefits of instructional activities. The grade point average is a strong predictor of academic achievement in college (Kim et al., 2019).

## OBJECTIVES

Main objectives of the study were as follows:

1. To compare the level of academic engagement among students at university level.
2. To find out the relationship of academic engagement and academic achievement among students at university level.

## LITERATURE REVIEW

Engagement originated in professional and occupational settings, but has recently been extended to educational settings as well (Reschly and Christenson, 2012; Assuncao, 2020). In the literature, student engagement has been referred to as student involvement, academic integration, the student experience and academic engagement. (Khademi et al., 2018; Bowden & Naumann, 2019).



Student engagement serves as the adhesive or mediator between important settings such as students' homes, universities, peers, and communities and their achievement. As a result, positive involvement is critical to academic progress and achievement (De Carolis et al. 2019).

Academic engagement is an important policy concern, since research continues to hold the promise of driving innovation across the economy and society (Perkmann,2021).

Student engagement was defined as the value and capacity of students' psychological, emotional, intellectual, and behavioral responses to the learning practice as well as out-of-class/in-class educational and community activities in order to achieve successful learning outcomes. In the last decade, student engagement has been viewed as a multidimensional phenomenon (Kuzu & Gunuc, 2014).

Martinez et al (2021), defined academic engagement as a state of psychological well-being characterized by three elements of intrinsic commitment to studies (vigor, dedication, and absorption). To denote the multi-dimensional nature of student engagement at the national, sector, institutional, and intra-institutional levels, NSSE created ten Engagement Indicators structured around four engagement themes: *Academic Challenge, Learning with Peers, Experiences with Faculty, Campus ENVIRONMENT*.

Academic achievement has long been a focus of educational research. Research on effectiveness in educational settings has centered on discovering the elements that best predict achievement in order to intervene early in the educational process and prevent academic failure. Academic engagement has been shown to have a positive effect on academic factors such as improved academic achievement (Martinez et al., 2021).

Academic achievement is a significant indicator of learning and understanding across all educational systems. Students who acquire a better level of academic achievement are more likely to complete degree and prosper academically and professionally in the future Sedaghat et al., 2011).

#### RESEARCH QUESTIONS

1. Is there any difference in level of academic engagement of students at university level?
2. Is there any relationship between academic engagement and academic achievement of students at university level?

#### METHODOLOGY

In present study, quantitative research method was used. Study was descriptive in nature; cross sectional survey research design was used. Two faculties (Faculty of Physical Sciences and Faculty of Social Sciences) were selected for collection of data as shown in the Table 0. Student of BS and MA/MSC programs were selected; 200 students were selected from *Physical Sciences* while other 200 students were selected from *Social Sciences* through convenient sampling technique. In total, sample includes 400 students of university of Sargodha.

**Table 0: Department wise distribution of sample**

Sr #	Faculty	Departments	Sample
1	Faculty of physical Sciences	Botany	25
		Chemistry	25
		Earth Science	25
		Mathematics	25
		Physics	25
		Statistics	25
		psychology	25
		Zoology	25

2	Faculty of Social Sciences	Education	25
		Psychology	25
		Social work	25
		Sociology	25
		Criminology	25
		International relation	25
		Political science	25
		Economics	25
	Total	16	400

An adapted questionnaire was used to measure student Engagement. The questionnaire included 47 statements with four-point Likert scale. Data was collected through the NSSE benchmark (2019). Instrument was pilot tested on 40 students through taking a sample from university of Sargodha; value of Cronbach’s Alpha was found 0.70 which was suitable. Data were analyzed by using SPSS through descriptive (Mean, standard Deviation) and inferential statistical techniques (Pearson Product-Moment Correlation, Independent sample t-test).

**Table 1, Description of sample of student engagement indicators**

Indicators	N	Mean	St. deviation
Academic challenge			
High order learning	600	10.65	2.55
Reflective and integrative learning		18.97	3.33
Learning strategy		7.97	1.89
Quantitative reasoning		7.72	2.77
Learning with others			
collaborative learning		10.99	2.42
Discussion with divers other		10.07	2.78
Experience with faculty			
Student faculty interaction	600	9.92	2.90
Effective teaching practice		13.84	3.44
Campus environment			
Quality interaction	600	11.067	3.00
Supportive environment		21.11	4.88

Table 1 discussed the statistics for campus environment in which ‘supportive environment’ had highest score, mean= (21.11) and St. Deviation= (4.88) while the ‘learning strategy’ lowest score, mean= (2.72) and St. Deviation= (2.77).

**Table 2: Mean and standard deviation of sample**

Statistic	N	Mean	St. Deviation
Academic challenge	600	45.32	7.23
Learning with others	600	21.06	4.11
Experience with faculty	600	23.76	5.14
Campus environment	600	32.18	6.52
Overall engagement	600	124.91	18.59

Table 2 showed that 'Academic challenge' had highest score' mean = (45.32) and St. Deviation = (7.23). While 'Learning with others' had lowest score 'mean= (21.06) and St. Deviation=( 4.11). overall engagement score means= (124.91) and St. Deviation=( 18.59).

**Table 3: Indicator wise comparison related to CGPA**

Indicators	N	CGPA(r)	P Value
Academic challenge	600	-.079	.115
Learning with others	600	.049	.330
Experience with faculty	600	.089	.076
Campus environment	600	.049	.332
Overall engagement	600	.019	.708

Significance level >0.05

Table 3 showed the indicator wise comparison with CGP of students. Insignificant difference was found in Academic challenge, learning with others, Experience with faculty, Campus environment and overall engagement with respect to CGPA respectively.

### Correlation between student engagement and their academic achievement

**Table 4: Factor wise correlation**

Sr.	N	Academic challenge	Learning others	with	Experience faculty	with	Campus environment
1 Academic challenge	600	1					
			.490**		.569**		.505**
			.000		.000		.000
2 Learning with others	600	.490**	1		.402**		.425**
		.000			.000		.000
3 Experience with faculty	600	.569**	.402**	1			.517**
		.000	.000				.000
4 Campus environment	600	.505**	.425**	.517**		1	
		.000	.000	.000			

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The result showed that there was strong positive relationship between Academic challenge, learning with others, Experience with faculty, Campus environment. Similarly, the relationship of academic challenge was very strong positive with Learning with others, Experience with faculty, Campus environment. The relationship between Learning with others and Academic challenge, Experience with faculty, Campus environment was found positively strong. The relationship with Experience with faculty and learning with others, Academic challenge, Campus environment was positive strong. The relationship between campus environment and Experience with faculty and learning with others and Academic challenge was found positively strong.

**Table 5: Relationship between student engagement and academic achievement of students**

Sr.	Variables	Mean	SD	N	Pearson r	Sig (2 tailed)
1	Academic engagement	112.58	13.88			
2	Academic achievements	3.12	.424	600	.285	0.000

Table 5 showed the relationship between student engagement and academic achievements of undergraduate students. Significant positive relationship was found between the student engagement (M=112.58, SD=13.88) and academic achievements (M=3.12, SD=.424) as  $r=.285$ ,  $N = 390$  and  $p=.000 < \alpha=.0.05$ .

## DISCUSSION

The study's main goal was to find out the relationship of academic engagement and academic achievement of university students. Academic engagement positively correlated with academic achievement of students, indicating that academic engagement has a direct effect on academic achievement of university students. This result was confirmed by the finding of Lei et al., (2018). The findings established a moderate positive relationship between academic achievement and all elements of student engagement (overall, behavioral, emotional, and cognitive). In other words, a greater level of academic engagement and achievement. In general, higher academic achievement was connected with increased behavioral, emotional, and cognitive engagement.

Results displayed that dimension of student engagement exhibited direct effect on personal growth as well as academic achievement of students (Yu et al., 2018). The results similarly exposed that academic engagement was significantly and positively associated with academic performance. Specifically, vigor, dedication and absorption were positively related to performance (Vizoso et al., 2018). According to a study, students who show high levels of engagement with their studies attain better academic performance (Spedding et al., 2017; Vizoso et al., 2018).

## CONCLUSION

Mean and standard deviation was determined of the factor Academic challenge, learning with others, experience with faculty, campus environment and overall engagement. Results showed that campus environment in which 'supportive environment' had highest score while the 'learning strategy' had lowest score. It is indicted that Academic challenge had highest score while learning with others had lowest score. It is exhibited the indicator wise comparison with CGP of students. Insignificant difference was found in Academic challenge, learning with others, Experience with faculty, Campus environment and overall engagement with respect to CGPA respectively.

The indicator wise comparison of Academic challenge, learning with others, experience with faculty, campus environment and overall engagement showed that there was no difference found in the Academic challenge of students of physical sciences and social sciences. Results showed that there was no difference found in involvement in staff of students of physical sciences and social sciences. There was no difference found in the Campus environment of students of physical sciences and social sciences. There was no significant difference found in the general engagement of student's physical sciences and social sciences. Factor wise relationship showed that there was a strong positive relationship between academic challenge, learning with others, Experience with faculty, Campus environment and overall engagement. Similarly, a positive relationship was observed between academic engagement and academic achievement of students which showed that academic engagement directly affects the academic achievement of university students.

## RECOMMENDATIONS

- More student-centered teaching methods may be used by university teachers that allow students to engage more actively in the teaching and learning process.
- On the basis of results, it is recommended that teachers may be provided training regarding better ways to engage students in classroom.
- In future the research sample size may be increased in order to get more comprehensive results related to this study.
- More variables that effect Students' academic achievement with students' engagement like Students 'satisfaction, self-regulated learning may be added for future study.

## CREDIT AUTHOR STATEMENT

**Ghazanfar Ali:** Conceptualization, Methodology, testing , Writing **Zunaira Fatima:** - Original draft preparation checking, results validation, supervision **Ashfaq Ahmad Shah:** Data curation, Investigation, proofreading

## COMPLIANCE WITH ETHICAL STANDARDS:

It is declare that all authors don't have any conflict of interest. Furthermore, informed consent was obtained from all individual participants included in the study.

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