ACADEMIC ENGAGEMENT IN RELATION TO ACADEMIC RESILIENCE: A STUDY OF UNDERGRADUATE STUDENTS

Rana Haldar[1], Dr. Kishor Kumar[2]

[1] Research Scholar, Department of Teacher Education, Central University of South Bihar, Gaya, Bihar
[2] Assistant Professor, Department of Teacher Education, Central University of South Bihar, Gaya, Bihar

Corresponding Author
Rana Haldar,
ranahaldar1992@gmail.com

ABSTRACT

This research has mainly aimed to study the academic engagement and academic resilience of undergraduate students and to determine the relationship between academic engagement of undergraduate students and their academic resilience. The study was confined on a sample of 228 undergraduate students of Nadia and Purba Bardhaman districts of West Bengal (India). The self-developed 'Academic Engagement Scale' and 'Academic Resilience Scale' were used by the researchers to study the level of academic engagement and academic resilience. The findings of the study revealed that a significant difference has been found between the mean scores of academic engagement of undergraduate students with respect to their locality and programme streams i.e. science & arts; mean scores of academic resilience of undergraduate students with respect to their locality; high and low academic engagement groups of undergraduate students on the measures of their academic resilience levels. But no significant difference has been found between the mean scores of academic engagement of undergraduate students with respect to their gender; and the mean scores of academic resilience with respect to their gender and academic streams i.e. science and arts stream. Further, a significant relationship has been found between the academic engagement of undergraduate students and their academic resilience.

Keywords: Academic Engagement, Academic Resilience, Undergraduate Students

1. INTRODUCTION

In the rapidly evolving landscape of higher education, the success and well-being of undergraduate students have become focal points of academic research. Among the various factors influencing student success, academic engagement and academic resilience stand out as key constructs that significantly shape students' learning experiences and outcomes. Academic engagement refers to the active participation, enthusiasm, and investment that students exhibit in their learning process, which is often linked to positive educational outcomes such as higher achievement, satisfaction, and persistence in academic programs (Saleem et al., 2022). According to Axelson & Flick, (2010), academic engagement refers to the extent to which students actively participate in and are committed to their learning. It encompasses behavioural, emotional, cognitive, and agentic dimensions, reflecting how students immerse themselves in academic activities, engage with learning materials, and interact with their peers and instructors (Reeve, 2013). When students are highly engaged, they exhibit a deeper connection to their work, heightened motivation, and increased academic achievement.

Equally important is academic resilience, which refers to students' capacity to adapt positively and persevere in the face of academic challenges, such as poor grades, personal setbacks, or difficult learning environments. Resilience helps students maintain their motivation and academic focus despite obstacles, thereby enhancing their chances of long-term success. As Martin and Marsh (2009) suggest, academic resilience is goal-oriented and strength-based, reflecting students' ability to use adversity as a catalyst for growth rather than a barrier to achievement.

Engagement in academic activities is essential for students' academic success, yet sustaining high levels of engagement can be difficult, especially in the face of challenges such as academic failure, personal setbacks, or overwhelming academic workloads. This is where academic resilience becomes a crucial factor (Mlcek & Pulla, 2014). Academic resilience refers to students' ability to effectively adapt and maintain motivation in the face of adversity(Denovan& Macaskill, 2017). Resilience allows students to persist in their studies despite obstacles, helping them bounce back from academic disappointments and setbacks (Martin & Marsh, 2008). Resilient students tend to maintain a positive outlook, stay goal-oriented, and employ adaptive strategies to overcome difficulties (Mozammel et al., 2018).The relationship between academic engagement and academic resilience is a topic of growing interest in educational research. While academic engagement propels students into active learning, resilience equips them with the skills to sustain that engagement even when they encounter challenges (Romano et al., 2021). This study seeks to explore the interplay between these two constructs. By investigating the relationship between academic engagement and academic resilience among undergraduate students, this research aims to provide insights that can inform educational strategies to support student development and success in higher education.

2. SIGNIFICANCE OF THE STUDY

The significance of this study lies in its exploration of the relationship between academic engagement and academic resilience among undergraduate students, considering gender, locality, and academic streams. By examining these factors, the research provides insights into what drives student success and well-being in higher education. The findings will be beneficial for educators, administrators, and policymakers in designing targeted interventions and support systems for diverse student populations. Understanding how resilience supports academic engagement despite challenges can lead to better academic outcomes and personal development. Ultimately, this study aims to improve educational experiences, increase student retention, and create adaptive learning environments where students can excel.

3. STATEMENT OF THE PROBLEM

The problem under investigation is entitled as *"Academic Engagement in Relation to Academic Resilience: A Study of Undergraduate Students"*

Operational Definitions of the Terms Used

Undergraduate Students: The students who were enrolled in B.Sc. and B.A. programmes of government and private degree colleges i.e. three years undergraduate programmes.

Academic Engagement: Academic engagement refers to students' active participation in their learning process, which includes their ability to focus, manage emotional responses, apply cognitive efforts, and take initiative in classroom activities. This engagement goes beyond mere attendance, involving deep intellectual involvement and meaningful interactions with peers and instructors. It comprises four key dimensions: behavioural engagement (active participation), emotional engagement (positive feelings toward learning), cognitive engagement (mental investment in learning), and agnatic engagement (students' proactive contributions to the learning environment).

Academic Resilience: Academic resilience refers to students' capacity to stay committed to their academic goals in the face of significant challenges such as academic pressure, anxiety, personal problems, or external stressors. Resilient students are able to bounce back from setbacks and persist in their efforts to succeed. This construct is characterized by three primary dimensions: perseverance (the ability to persist despite obstacles), adaptive help-seeking (seeking assistance and resources when needed), and emotional responses to adversity (managing negative emotions in challenging situations).

Objectives of the Study

The objectives of the study are as follows:

- To compare the academic engagement of undergraduate students with respect to gender.

- To compare the academic engagement of undergraduate students with respect to locality.
- To compare the academic engagement of undergraduate students with respect to academic streams.
- To compare the academic resilience of undergraduate students with respect to gender.
- To compare the academic resilience of undergraduate students with respect to locality.
- To compare the academic resilience of undergraduate students with respect to academic streams.
- To compare the high and low academic engagement groups of undergraduate students on the measures of their academic resilience levels.
- To study the relationship between the academic engagement and academic resilience of undergraduate students.

Hypotheses of the Study
Following are the formulated null hypotheses for the present study:
- There is no significant difference between the academic engagement of male and female undergraduate students.
- There is no significant difference between the academic engagement of urban and rural undergraduate students.
- There is no significant difference between the academic engagement of science and arts stream undergraduate students.
- There is no significant difference between the academic resilience of male and female undergraduate students.
- There is no significant difference between the academic resilience of urban and rural undergraduate students.
- There is no significant difference between the academic resilience of science and arts streams undergraduate students.
- There is no significant difference between high and low academic engagement groups of undergraduate students on the measures of their academic resilience levels.
- There is no significant relationship between the academic engagement and academic resilience of undergraduate students.

4. RESEARCH METHODOLOGY

Researchers adopted the normative survey method to study the problem. A sample of 228 undergraduate students (147 from science stream, 81from arts stream) was selected by random sampling technique from the government and private colleges of districts- Nadia and Purba Bardhaman of West-Bengal to explore the study. The 'Academic Engagement Scale' consisted of 23 items and 'Academic Resilience Scale' consisted of 20 items as developed by the researchers were used for data collection on the variables academic engagement and academic resilience from the undergraduate students. The collected data was analysed statistically by applying descriptive and inferential statistics i.e. Mean, S.D., t-test and Pearson correlation to test the framed hypotheses.

5. RESULTS AND DISCUSSION

The relevant data was collected, analysed and interpreted according to the formulated objectives. The following tables and subsequent interpretation is explained in the following paragraphs:

Table No.1
Comparison of Mean, S.D. and t-value of Academic Engagement of Male and Female Undergraduate Students

Group (s)	N	Mean	S.D.	t- value	Df	Level of Significance
Male Undergraduate Students	101	87.06	12.20	0.803	226	0.05*
Female Undergraduate Students	127	85.93	9.05			

* Not significant at 0.05 level of significance

Table no.1 revealed that obtained mean scores of academic engagement of male and female undergraduate students are 87.06 and 85.93 respectively and S.D. are 12.20 and 9.05 respectively. Calculated t-value is 0.803 which is not significant at 0.05 level of significance. Therefore, the null hypothesis i.e. "There is no significant difference between the academic engagement of male and female undergraduate students" fails to be rejected. This depicts that there is no statistically significant difference between the academic engagement of male and female undergraduate students. The reason behind

this finding may be attributed to the healthy environment provided equally to male and female undergraduate students in the classroom and campus during their course or programme. The personal counselling and mentoring are provided to male and female undergraduate students by their teacher educators. That's why both comparable groups have almost similar level of academic engagement. In contrast, Ayub et al. (2017) reported that male students have higher academic engagement than female students.

Table No. 2
Comparison of Mean, S.D. and t-value of Academic Engagement of Urban and Rural Undergraduate Students

Group(s)	N	Mean	S.D.	t-value	Df	Level of Significance
Urban Undergraduate Students	82	89.56	12.87	3.437	226	
Rural Undergraduate Students	146	84.67	8.55			0.01*

* Significant at 0.01 level of significance

It is clear from table no. 2 that mean scores of academic engagement of urban and rural undergraduate students are 89.56 and 84.67 respectively and their corresponding S.D. are 12.87 and 8.55. Calculated t-value is 3.437 which is significant at 0.01 level of significance. Therefore, the null hypothesis i.e. "There is no significant difference between the academic engagement of urban and rural undergraduate students" is rejected. It means that there is a statistically significant difference between the academic engagement of urban and rural undergraduate students. The study by Ayub et al. (2017) also reported similar results.

Table No.3
Comparison of Mean, S.D. and t-value of Academic Engagement of Undergraduate Students belongs to Science and Arts streams

Group(s)	N	Mean	S.D.	t-value	Df	Level of Significance
Science Stream Students	147	87.67	11.42	2.423	226	0.05*
Arts Stream Students	81	84.17	8.36			

* Significant at 0.05 level of significance

Table no. 3 disclosed that mean scores of academic engagement of undergraduate students belongs to Science and Arts streams are 87.67 and 84.17 respectively and their corresponding S.D. are 11.42 and 8.36. Calculated t-value is 2.423 which is significant at 0.05 level of significance. Therefore, the null hypothesis i.e. "There is no significant difference between the academic engagements of undergraduate students belongs to Science and Arts streams" is rejected. It means that there is statistically significant difference between the academic engagements of undergraduate students belongs to Science and Arts streams. The science stream students have the higher mean score in comparison to the arts stream students which showed their more academic engagement.

Table No.4
Comparison of Mean, S.D. and t-value of Academic Resilience of Male and Female Undergraduate Students

Group (s)	N	Mean	S.D.	t-value	Df	Level of Significance
Male Undergraduate Students	101	89.16	8.36	0.020	226	
Female Undergraduate Students	127	89.18	8.98			0.05*

* Not significant at 0.05 level of significance

Table no. 4depicts that mean scores of academic resilience of male and female undergraduate students are 89.16 and 89.18 respectively and S.D. scores are 8.36 and 8.98 respectively. The obtained t-value is 0.020 which is not significant at 0.05 level of significance. Therefore, the null hypothesis i.e. "there is no significant difference between the academic resilience of male and female undergraduate students" fails to be rejected. It means that the both comparable groups of undergraduate students are not differing statistically significant. This indicated that both groups have almost similar academic resilience. Similar results were reported by Nair & Kumar (2024) and Latif & Amirullah (2020) in their respective studies.

Table No.5
Comparison of Mean, S.D. and t-value of Academic Resilience of Urban and Rural Undergraduate Students

Group (s)	N	Mean	S.D.	t-value	Df	Level of Significance
Urban Undergraduate Students	146	90.34	8.70	2.739	226	
Rural Undergraduate Students	82	87.10	8.31			0.01*

* Significant at 0.01 level of significance

Table no. 5 shows that mean scores of academic resilience of urban and rural undergraduate students are 90.34 and 87.10 respectively and S.D. scores are 8.70 and 8.31 respectively. Obtained t-value is 2.739 which is significant at 0.01 level of significance. Therefore, the null hypothesis i.e. "there is no significant difference between the academic resilience of urban and rural undergraduate students" is rejected. This depicts that there is statistically significant difference between the academic engagement of urban and rural undergraduate students. Mean score values of table also highlighted that urban students have the more academic resilience in comparison to rural students. In line with this study, Mallick & Kaur (2016) also reported a similar conclusion.

Table No.6
Comparison of Mean, S.D. and t-value of Academic Resilience of Science and Arts Streams Undergraduate Students

Group(s)	N	Mean	S.D.	t-value	Df	Level of Significance
Science Stream Students	93	88.30	8.91	1.257	226	
Arts Stream Students	135	89.77	8.51			0.05*

* Not significant at 0.05 level of significance

Table no. 6displays that obtained mean scores of academic resilience of science and arts streams undergraduate students are 88.30 and 89.77 respectively and their corresponding S.D. are 8.91 and 8.51. The calculated t-value is 1.257 which is not significant at 0.05 level of significance. Therefore, the null hypothesis i.e. "there is no significant difference between the academic resilience of science and arts streams undergraduate students" fails to be rejected. It means that there is no significant difference between the academic resilience of science and arts streams undergraduate students. From the table mean score values refer that the both groups of undergraduate students have the almost similar level of academic resilience. In contrast to this result, Nair & Kumar (2024) showed that there are stream-wise differences.

Table No.7
Comparison of Mean, S.D. and t-value of High and Low Academic Engagement groups of Undergraduate Students on the measures of their Academic Resilience Levels

Group (s)	N	Mean	S.D.	t-value	Df	Level of Significance
High Academic Engagement Group	75	89.29	12.48	4.264	148	
Low Academic Engagement Group	75	81.44	9.93			0.01*

* Significant at 0.01 level of significance

Table no.7 discloses that obtained mean scores of high and low academic engagement groups of undergraduate students on the measures of their academic resilience levels are 89.29 and 81.44 respectively and their S.D. are 12.48 and 9.93 respectively. Calculated t-value is 4.264 which is significant at 0.01 level of significance. Therefore, the null hypothesis i.e. "there is no significant difference between the high and low academic engagement groups of undergraduate students on the measures of their academic resilience levels" is rejected. It means there is a significant difference between the high and low academic engagement groups of undergraduate students on the measures of their academic resilience levels. The finding inferred that undergraduate students having the high level of academic resilience have the high academic engagement in comparison to the low level of their academic resilience.

Table No.8
Correlation Coefficient between the Academic Engagement of Undergraduate Students and their Academic Resilience (N=228)

Variable	Pearson Correlation Coefficient (r)	Level of Significance
Academic Engagement	0.363	0.01**
Academic Resilience		

**Significant at 0.01 level of significance

Table No. 8 reveals that the obtained Pearson Correlation Coefficient (r) between the scores of academic engagement of undergraduate students and their academic resilience is r = 0.363 which is significant at 0.01 level of significance. Therefore, the null hypothesis i.e. "there is no significant relationship between the academic engagement and academic resilience of undergraduate students" is rejected. It means there is significant relationship between the academic engagement of undergraduate students and their academic resilience. The calculated value of Pearson correlation coefficient (r = 0.363) infers that there exists a low positive and significant correlation between academic engagement of undergraduate students and their academic resilience. It implies that level of academic engagement is a major predictor of the academic resilience of undergraduate students. Romano et al. (2021) also reported a significant correlation between academic engagement and academic resilience.

6. EDUCATIONAL IMPLICATION
Findings of the study depicted that it will provide more insight to college teachers in the identification of different factors related to the levels of academic resilience of undergraduate students. This study will provide a useful resource to the various teachers of degree colleges and universities. Further, it would be more significant to understand the relationship between the academic engagement of undergraduate students and their levels of academic resilience; relationship between the aptitude towards various subjects and the levels of academic resilience of undergraduate students about the streams i.e. science and arts. Moreover, study will helpful for researchers, educationists, policy makers to identify the responsible factors for 'low and high levels of academic resilience' of undergraduate students.

CONFLICT OF INTERESTS
None

REFERENCES
Axelson, R. D., & Flick, A. (2010). Defining student engagement. *Change: The Magazine of Higher Learning*, *43*(1), 38–43. https://doi.org/10.1080/00091383.2011.533096

Ayub, A. F. M., Yunus, Aida S. M., Mahmud, R., Salim, N. R., & Sulaiman, T. (2017). Differences in students' mathematics engagement between gender and between rural and urban schools. *Proceedings of the AIP Conference.*020025-1–020025-6. https://doi.org/10.1063/1.4972169

Denovan, A., & Macaskill, A. (2017). Stress, resilience and leisure coping among university students: Applying the broaden-and-build theory. *Leisure Studies*, *36*(6), 852–865. https://doi.org/10.1080/02614367.2016.1240220

Latif, S., & Amirullah, M. (2020). Students' Academic Resilience Profiles based on Gender and Cohort. *Jurnal Kajian Bimbingan dan Konseling, 5*(4), 175–182.

Mallick, M. K., & Kaur, S. (2016). Academic resilience among senior secondary school students: Influence of learning environment. *Rupkatha Journal on Interdisciplinary Studies in Humanities, 8*(2), 20-27.

Martin, A. J. (2013). Academic buoyancy and academic resilience: Exploring 'everyday' and 'classic' resilience in the face of academic adversity. *School Psychology International*, *34*(5), 488-500. https://doi.org/10.1177/0143034312472759

Martin, A. J., & Marsh, H. W. (2008). Academic buoyancy: Towards an understanding of students' everyday academic resilience. *Journal of School Psychology, 46*(1), 53-83. https://doi.org/10.1016/j.jsp.2007.01.002

Martin, A. J.,& Marsh, H. W. (2009). Academic resilience and academic buoyancy: Multidimensional and hierarchical conceptual framing of causes correlates and cognate constructs. *Oxford Review of Education*, *35*(3), 353-370. https://doi.org/10.1080/03054980902934639

Mlcek, S., & Pulla, V. (2014). Knowledge building for practice: Resilience in social work student engagement. *International Journal of Innovation, Creativity and Change, 1*(4), 57-74. https://acuresearchbank.acu.edu.au/item/895y3

Mozammel, S., Ahmed, U., Slade, H., & Zaman, F. (2018). Digging deep in students engagement in Bahrain: Contributions from academic self-efficacy and academic resilience. *International Journal of Management and Business Research*, *8*(1), 136-147. https://www.aou.org.bh/research/Documents/Research/BAS/Dr_Umair/Journals/2018B.pdf

Nair, G., & Kumar, S. A. S. (2024). Academic resilience among higher secondary school students of Kozhikode district. *International Journal for Multidisciplinary Research, 6*(2), 1-8.

Reeve, J. (2013). How students create motivationally supportive learning environments for themselves: The concept of agentic engagement. *Journal of Educational Psychology, 105*(3), 579-595. https://doi.org/10.1037/a0032690

Romano, L., Angelini, G., Consiglio, P., & Fiorilli, C. (2021). Academic resilience and engagement in high school students: The mediating role of perceived teacher emotional support. *European journal of investigation in health, psychology and education*, *11*(2), 334-344. https://doi.org/10.3390/ejihpe11020025

Romano, L., Angelini, G., Consiglio, P., & Fiorilli, C. (2021). Academic resilience and engagement in high school students: The mediating role of perceived teacher emotional support. European Journal of Investigation in Health, Psychology and Education, 11(2), 334–344. https://doi.org/10.3390/ejihpe11020025

Saleem, M. S., Isha, A. S. N., Awan, M. I., Yusop, Y. B., & Naji, G. M. A. (2022). Fostering academic engagement in post-graduate students: Assessing the role of positive emotions, positive psychology, and stress. *Frontiers in Psychology, 13,* 920395. https://doi.org/10.3389/fpsyg.2022.920395