



## Perception of Teachers' Regarding Collaborative Learning Strategies, Students' Engagement, Academic Performance, and Peer Relationships in Higher Education

Dr. Fahd Naveed Kausar<sup>1</sup>

<sup>1</sup>Assistant Professor, School of Education, Minhaj University Lahore, Punjab, Pakistan

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#### Corresponding Author:

Dr. Fahd Naveed Kausar

#### Email:

[fahdnaveed1@hotmail.com](mailto:fahdnaveed1@hotmail.com)

### ABSTRACT

Collaborative learning strategies foster active student engagement, enhancing both cognitive and social involvement in the learning process. This, in turn, improves academic performance and strengthens peer relationships, creating a supportive and inclusive learning environment. The purpose of the study was to identify the level of collaborative learning strategies, student engagement, academic performance, and peer relationships in higher education. The study employed a descriptive research design. The population consisted of all public and private 39 universities in Lahore District. A multistage simple random sampling technique was utilized to ensure comprehensive representation. The instrument of the study was questionnaire. To ensure content validity, the instruments were evaluated by subject-matter experts. Reliability was tested through pilot testing, with Cronbach's Alpha values calculated for internal consistency. Primary data was collected using the administered questionnaires, which were distributed to the selected participants. Data analysis was conducted using the Statistical Package for Social Sciences (SPSS). Descriptive statistics was used. The findings of the study revealed that perception of teachers' regarding collaborative learning strategies, students' engagement, academic performance, and peer relationships in higher education reflected toward the higher level of agreement.



## Introduction

The evolving landscape of education necessitates innovative teaching strategies that promote active participation, meaningful learning, and interpersonal development among students. Collaborative learning has emerged as a cornerstone in this context, particularly in higher education, where diverse student populations require inclusive and effective pedagogical approaches. Collaborative learning strategies, rooted in constructivist theories, emphasize active

engagement, shared responsibility, and peer-to-peer interaction (Johnson & Johnson, 2019). These strategies have gained recognition for their potential to enhance critical thinking, problem-solving skills, and deeper understanding of course material (Slavin, 2020). Teachers' perceptions of collaborative learning play a pivotal role in shaping its implementation and effectiveness. Understanding these perceptions provides valuable insights into how educators design, facilitate, and assess collaborative activities in the classroom.

Student engagement is another critical element of educational success that aligns closely with collaborative learning strategies. Defined as the degree of attention, curiosity, and interest students demonstrate in the learning process, engagement significantly impacts academic achievement and retention (Fredricks et al., 2004). Research suggests that collaborative learning fosters cognitive, emotional, and behavioral engagement by encouraging students to actively participate, share ideas, and take ownership of their learning (Trowler, 2010). Teachers' perceptions of student engagement are vital, as they influence the selection of instructional strategies and the creation of supportive learning environments. These perceptions also shape how educators address barriers to engagement, such as lack of motivation or inadequate support systems. Academic performance, a key indicator of educational outcomes, is intricately linked to collaborative learning and student engagement. Higher education institutions increasingly prioritize approaches that not only improve students' grades but also equip them with skills for lifelong learning and professional success (Biggs & Tang, 2011). Collaborative learning strategies have been associated with improved academic performance, as they promote active knowledge construction, critical thinking, and the application of concepts to real-world problems (Gokhale, 1995). Teachers' perceptions of the relationship between collaborative learning and academic performance provide valuable feedback for refining instructional methods and identifying best practices. These perceptions also highlight the challenges educators' face, such as ensuring equal participation and addressing diverse learning needs (Mudrikah, Pitaloka, & Setiyani, 2024).

Peer relationships represent another essential dimension of the learning experience in higher education. Positive peer interactions contribute to a sense of belonging, emotional well-being, and social development, which in turn enhance academic success (Wentzel & Caldwell, 1997). Collaborative learning inherently fosters peer relationships by requiring students to work together, communicate effectively, and resolve conflicts constructively (Gillies, 2016). Teachers' perceptions of the role of peer relationships in collaborative learning are crucial for understanding how these interactions influence group dynamics and learning outcomes. Educators' insights also shed light on strategies for fostering inclusivity and addressing challenges such as group conflicts or social loafing. The interplay between collaborative learning strategies, student engagement, academic performance, and peer relationships underscores the complexity of teaching and learning in higher education. Teachers occupy a central position in this dynamic, as their beliefs, attitudes, and practices shape the educational experiences of their students. Research indicates that teachers' perceptions are influenced by various factors, including their pedagogical training, personal experiences, and institutional culture (Borko, 2004). Exploring these perceptions provides a holistic understanding of the opportunities and challenges associated with implementing collaborative learning in higher education (Haq, & Sadat, 2024).

The significance of collaborative learning strategies in higher education has been well-documented in recent literature. For instance, Barkley et al. (2014) highlight the role of collaborative learning in promoting active engagement and deeper understanding of course material. Similarly, Prince (2004) emphasizes that collaborative approaches enhance academic performance by encouraging students to think critically and apply knowledge in practical contexts. However, the success of these strategies depends largely on teachers' ability to design and facilitate effective group

activities. Teachers' perceptions of the benefits and limitations of collaborative learning are thus critical for identifying best practices and addressing implementation challenges. Student engagement, as a concept, has evolved over the years to encompass cognitive, emotional, and behavioral dimensions. Kuh (2009) argues that engaged students are more likely to achieve academic success and develop skills for lifelong learning. Collaborative learning strategies have been shown to enhance engagement by creating interactive and participatory learning environments (Dörnyei, 2001). Teachers' perceptions of student engagement provide valuable insights into how collaborative activities can be tailored to meet diverse learning needs. These perceptions also highlight the barriers to engagement, such as lack of motivation or insufficient support, and suggest strategies for overcoming these challenges (Khan, Noreen, & Hussaini, 2024).

Academic performance remains a primary focus of educational research, particularly in the context of higher education. Biggs and Tang (2011) propose that teaching strategies that promote active learning and critical thinking are more likely to improve academic outcomes. Collaborative learning has been associated with higher academic performance, as it encourages students to construct knowledge, analyze problems, and develop solutions collaboratively (Hattie, 2009). Teachers' perceptions of the impact of collaborative learning on academic performance provide valuable feedback for refining instructional methods and identifying areas for improvement. These perceptions also shed light on the challenges educators face, such as managing group dynamics and ensuring equal participation. Peer relationships are fundamental to the success of collaborative learning in higher education. Positive peer interactions contribute to a supportive and inclusive learning environment, which in turn enhances academic and social outcomes (Wentzel, 2019). Collaborative learning provides opportunities for students to build trust, communicate effectively, and develop interpersonal skills (Johnson et al., 2007). Teachers' perceptions of peer relationships are crucial for understanding how these interactions influence group dynamics and learning outcomes. Educators' insights also inform strategies for fostering inclusivity and addressing challenges such as group conflicts or social loafing (Veldman, Doolaard, Bosker, & Snijders, 2024).

Despite the potential benefits of collaborative learning, several challenges remain. Teachers often face difficulties in designing and facilitating effective group activities, particularly in diverse classrooms with varying levels of student ability and motivation (Gillies & Boyle, 2010). Ensuring equal participation and managing group dynamics are also common concerns. Teachers' perceptions of these challenges provide valuable insights into the factors that influence the success of collaborative learning strategies. These perceptions also highlight the need for professional development and institutional support to equip educators with the skills and resources required to implement collaborative learning effectively (Xu, Stephens, & Lee, 2024). The perceptions of teachers regarding collaborative learning strategies, student engagement, academic performance, and peer relationships provide a comprehensive understanding of the complexities of teaching and learning in higher education. These perceptions highlight the interconnectedness of these elements and underscore the importance of a holistic approach to education. By exploring teachers' insights, this study aims to contribute to the ongoing discourse on improving the quality of education in higher education institutions. The findings will have implications for policy, practice, and future research, particularly in the areas of teacher training, curriculum design, and student support.

### **Objective**

1. To identify the level of collaborative learning strategies in higher education.
2. To find the level of student engagement in higher education.
3. To analyze the level of academic performance in higher education.

4. To identify the level of peer relationships in higher education.

## **Methodology**

The study employed a descriptive research design. The population consisted of all public and private 39 universities in Lahore District. A multistage simple random sampling technique was utilized to ensure comprehensive representation. Randomly five universities were selected for sample. From each university fifty teachers were selected randomly. Resultantly, the sample was comprised off 250 teachers. The instrument of the study was questionnaire. The questionnaire was adapted by Collaborative learning strategies (Manzano-León, et al, 2021), students' engagement (Cebrián Cifuentes, & Guerrero Valverde, 2024), academic performance (Kausar, & Butt, 2023) and peer relationship (Delgado, Serna, Martínez, & Cruise, 2022). To ensure content validity, the instruments were evaluated by subject-matter experts. Reliability was tested through pilot testing, with Cronbach's Alpha values calculated for internal consistency. The reliability scores for the Collaborative learning strategies questionnaire was 0.827, students' engagement 0.772, academic performance 0.801 and peer relationship 0.793, indicating a high level of dependability, as both exceeded the commonly accepted minimum threshold of 0.75. Primary data was collected using the administered questionnaires, which were distributed to the selected participants. Data analysis was conducted using the Statistical Package for Social Sciences (SPSS). Descriptive statistics was used.

## **Data analysis**

**Table 1: Collaborative learning strategies**

<b>Items</b>	<b>M</b>	<b>S.D.</b>
Students often engage in group tasks to complete assignments or solve problems in the classroom.	1.95	.951
Group activities are designed to encourage teamwork and enhance communication skills among students.	1.93	.887
I assign specific roles to students during collaborative learning activities to ensure equal participation.	1.91	.895
Students feel confident and comfortable sharing their ideas during group discussions or projects.	2.05	.944
Collaborative learning strategies are effective in improving students' understanding of the subject matter.	2.10	.921

The above table illustrates the Collaborative learning strategies description on the basis of mean and standard deviation. According to the respondents' responses, Students often engage in group tasks to complete assignments or solve problems in the classroom (M=1.95; SD=0.95), Group activities are designed to encourage teamwork and enhance communication skills among students (M=1.93; SD=0.88), I assign specific roles to students during collaborative learning activities to ensure equal participation (M=1.91; SD=0.89), Students feel confident and comfortable sharing their ideas during group discussions or projects (M=2.05; SD=0.94), and Collaborative learning strategies are effective in improving students' understanding of the subject matter (M= 2.10; SD=0.92). Overall, respondents' responses reflected toward the level of agreement.

**Table 2: Students' engagement**

<b>Items</b>	<b>M</b>	<b>S.D.</b>
Students show interest and enthusiasm during classroom activities and discussions.	2.18	1.039
I use a variety of teaching methods to keep students actively engaged in the learning process.	2.30	1.080
Students participate willingly in classroom discussions and ask questions to clarify their understanding.	2.16	1.089
Classroom activities are designed to connect with students' interests and real-world experiences.	2.30	1.083
Students stay focused and on task during lessons without frequent redirection.	2.43	1.122

The above table illustrates the students' engagement description on the basis of mean and standard deviation. According to the respondents' responses, Students show interest and enthusiasm during classroom activities and discussions (M=2.18; SD=1.03), I use a variety of teaching methods to keep students actively engaged in the learning process (M=2.30; SD=1.08), Students participate willingly in classroom discussions and ask questions to clarify their understanding (M=2.16; SD=1.08), Classroom activities are designed to connect with students' interests and real-world experiences (M=2.30; SD=1.08), and Students stay focused and on task during lessons without frequent redirection (M=2.43; SD=1.12). Overall, respondents' responses reflected toward the level of agreement.

**Table 3: Academic performance**

<b>Items</b>	<b>M</b>	<b>S.D.</b>
Students consistently meet or exceed the academic expectations set for their grade level.	2.19	1.037
Classroom activities and assessments effectively measure students' understanding and skills.	2.40	1.140
I regularly monitor and provide feedback on students' academic progress.	2.23	1.095
Students demonstrate improvement in their academic performance over time.	2.21	1.042
Factors such as classroom environment and teaching strategies positively influence students' academic outcomes.	2.28	1.072

The above table illustrates the academic performance description on the basis of mean and standard deviation. According to the respondents' responses, Students consistently meet or exceed the academic expectations set for their grade level (M=2.19; SD=1.03), Classroom activities and assessments effectively measure students' understanding and skills (M=2.40; SD=1.14), I regularly monitor and provide feedback on students' academic progress (M=2.23; SD=1.09), Students demonstrate improvement in their academic performance over time (M=2.21; SD=1.04), and Factors such as classroom environment and teaching strategies positively influence students' academic outcomes (M=2.28; SD=1.07). Overall, respondents' responses reflected toward the level of agreement.

**Table 4: Peer relationships**

<b>Items</b>	<b>M</b>	<b>S.D.</b>
Students in my class demonstrate respect and support for one another during group activities.	2.19	.998
Students form positive and inclusive friendships with their peers inside and outside the classroom.	2.18	1.054
Conflicts between students are resolved constructively with minimal disruption to the learning environment.	2.21	1.067
Classroom activities provide opportunities for students to build trust and collaboration with their peers.	2.22	1.084
Students feel a sense of belonging and acceptance among their classmates.	2.32	1.157

The above table illustrates the peer relationships description on the basis of mean and standard deviation. According to the respondents' responses, Students in my class demonstrate respect and support for one another during group activities (M=2.19; SD=0.99), Students form positive and inclusive friendships with their peers inside and outside the classroom (M=2.18; SD=1.05), Conflicts between students are resolved constructively with minimal disruption to the learning environment (M=2.21; SD=1.06), Classroom activities provide opportunities for students to build trust and collaboration with their peers (M=2.22; SD=1.08) and Students feel a sense of belonging and acceptance among their classmates (M=2.32; SD=1.15). Overall, respondents' responses reflected toward the level of agreement.

## **Discussion**

Collaborative learning strategies can be implemented at varying levels, ranging from simple pair-based activities to complex, multi-group projects. At the basic level, students engage in structured pair discussions or think-pair-share exercises that promote quick idea exchange. Intermediate levels involve small group tasks such as problem-solving, case studies, or role-playing, where students collaboratively work towards a shared goal (Wang, et al, 2024). Advanced levels include long-term projects, simulations, or research collaborations, requiring higher levels of coordination, critical thinking, and peer accountability. The effectiveness of these strategies depends on clear goals, well-defined roles, and scaffolding to ensure active participation. Teachers' facilitation and monitoring play a vital role in maintaining group dynamics and addressing challenges like unequal participation or conflicts (Taxirovna, 2024). The choice of strategy level should align with the learning objectives, course content, and students' readiness for collaborative work.

Student engagement can be conceptualized at multiple levels, each reflecting varying degrees of participation and investment in the learning process. At the foundational level, cognitive engagement involves students actively processing information, making connections, and demonstrating attention to tasks. Behavioral engagement builds on this, focusing on students' active participation in class activities, completing assignments, and contributing to discussions (Kausar, 2024). Emotional engagement encompasses students' feelings of interest, enjoyment, and connection to the subject matter, peers, and the teacher. At a deeper level, social engagement emerges, where students collaborate with peers, develop relationships, and engage in meaningful dialogue. These levels are interrelated, with higher levels of engagement fostering greater motivation and a sense of belonging, which ultimately enhances academic performance and retention (Wong, Liem, Chan, & Datu, 2024). Teachers' ability to recognize and foster these varying levels is crucial to cultivating a learning environment that supports sustained student involvement.

Academic performance in higher education can be understood across several levels, reflecting the depth and breadth of students' learning outcomes. At the foundational level, students demonstrate basic knowledge acquisition and meet the minimum course requirements, often through exams and assignments. Intermediate levels involve students applying knowledge to practical scenarios, engaging in critical thinking, and synthesizing concepts across disciplines (Kausar, et al., 2024). At more advanced levels, academic performance is characterized by the ability to conduct independent research, contribute original ideas, and engage in complex problem-solving. The highest levels of performance reflect mastery, where students not only excel in coursework but also demonstrate a deep understanding of the subject, contribute to academic discourse, and apply knowledge in professional settings (Kausar, 2024). Factors like intrinsic motivation, faculty support, and learning environments significantly influence these levels, with higher levels of engagement and collaboration often leading to better academic outcomes.

Peer relationships in higher education develop across multiple levels, each contributing to students' social and academic experiences. At the basic level, students engage in casual interactions, forming early friendships and familiarizing themselves with group dynamics. As relationships deepen, students begin to collaborate more closely, participating in study groups, peer feedback sessions, or collaborative projects (Kausar, 2024). At intermediate levels, peer relationships contribute to academic support, with students sharing resources, ideas, and strategies to enhance learning. Advanced levels of peer relationships are characterized by mentorship, where upper-level students guide their peers, providing advice and emotional support. These relationships also foster a sense of community, promoting student well-being and a positive learning environment (Shen, & French, 2024). Positive peer interactions enhance trust, cooperation, and inclusivity, which in turn influence academic success and personal development. Effective management of peer relationships can reduce challenges like group conflicts and social loafing.

## **Conclusion**

In conclusion, the interconnectedness of collaborative learning, student engagement, academic performance, and peer relationships highlights the complexity of the higher education experience. Effective collaborative learning strategies at various levels promote deeper cognitive, emotional, and behavioral engagement, which in turn positively impacts academic outcomes. The diverse levels of student engagement, ranging from cognitive to social, influence students' overall investment in their learning, fostering a deeper sense of ownership and motivation. Academic performance is shaped by the ability to apply knowledge critically and independently, with higher levels reflecting mastery and preparation for real-world challenges. Additionally, peer relationships play a crucial role in providing academic and emotional support, fostering a collaborative and inclusive learning environment. Teachers' perceptions and facilitation of these elements are key in shaping students' experiences and outcomes. Addressing the challenges in implementing these strategies requires continuous professional development, institutional support, and a commitment to creating a dynamic, engaging, and supportive educational environment. Ultimately, the synergy between these elements can enhance both the academic and social development of students in higher education.

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