Enhancing Higher Education through Active Learning: Pedagogic Techniques and Student Perspectives

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Fostering a secure and welcoming classroom environment is crucial for promoting active learning and student engagement. This study examines the implementation of active learning techniques in a small, public-sector university in northern Pakistan. Data was gathered from 150 students across various departments through random sampling. The majority of respondents were male, unmarried, and from nuclear families with parents employed in government jobs and residing in rural areas. Findings reveal that students consider group discussions and the use of multimedia as effective learning tools. Research has also indicated that teacher cooperation and a supportive learning environment are critical components in enhancing students' active learning. Additionally, it has been found that teachers' motivational strategies—like the use of inspirational quotes—have a positive effect on the learning outcomes of their students. The study demonstrated that students' active engagement in extracurricular activities and class is essential to effective learning. It was also found that audio-visual aids and instructional discussion events were beneficial for students' learning. The findings have ramifications for pedagogy at the postsecondary level with regard to enhancing student participation in the classroom and promoting active learning via the use of instructional techniques that promote secure and stimulating learning environments.

1. Introduction

Teaching methods that involve students are important in today's teaching practice, especially in tertiary institutions, since they facilitate student engagement and better learning outcomes. These methods, which could include the use of exercises, PowerPoint presentations, group debates, and storytelling are meant to present a dynamic learning environment that will captivate the interest of the students and make them active participants in the process. There is a growing body of research that points to the effectiveness of employing the techniques of active learning in the classroom in order to enhance student outcomes and create a more welcoming climate for students (Brame, 2016; Michael, 2006; Settles, 2009). The demands to revise the teaching and learning processes in various disciplines, including humanities, social sciences, sciences, and arts, have led to these innovations in teaching techniques. In this way, a positive and encouraging atmosphere can be created in the classroom and students secured to take the leadership in their learning process.

As it has been evident in the framework of active learning, classroom activities play a vital role in the improvement of student's knowledge and utilization. They allow the student to interact with the other students to foster the achievement of common objectives that are set as well as consider different ideas. In the same way, how the teacher fosters a supportive learning climate within the classroom is strongly correlated with active learning. To enhance learners' participation and engagement, the instructors should devise and implement lesson plans that facilitate such processes. The utilization of visual aids, such as diagrams or drawings, may greatly improve pupils' comprehension of difficult ideas (Wiles, 2016). Visual stimuli not only capture students' attention but also facilitate deeper comprehension and retention of information. Group activities that incorporate visual elements encourage collaboration and critical thinking (Nelson & Crow, 2014). Allowing students to discuss their work with each other during short breaks can enhance their understanding and retention of the material. These brief intervals provide an opportunity for students to clarify their thoughts, address any misconceptions, and reinforce their learning through peer interaction.

Further, engaging students in brief, focused discussions where they respond with a single word can be an effective way to gauge their understanding and stimulate critical thinking. This technique encourages students to articulate their thoughts concisely and promotes active participation in large classroom settings. Another important way of stimulating is storytelling which is a powerful tool for conveying abstract concepts or principles in a relatable and engaging manner (Morris, 2015). By using real-life examples or case studies, teachers can help students connect theoretical concepts to practical applications, thereby enhancing their understanding and retention of the material. Importantly, encouraging students to express their agreement or disagreement with a given statement can promote critical thinking and stimulate discussion (Prince, 2004). This technique encourages students to think independently and articulate their views, fostering a sense of intellectual autonomy. In brief, active learning techniques are integral to creating a dynamic and engaging classroom environment. By incorporating these techniques into their teaching practices, educators can enhance students' learning experiences and promote a deeper understanding of the subject matter.

The current article explores various active learning techniques and their impact on student learning focusing on students' perspective. Broadly, the article highlights the importance of creating opportunities for active engagement in the classroom. Specifically, it focuses on seeking answers to the following research questions:

1. What are the key factors contributing to a positive classroom environment that enhances active learning among students?

2. How do students perceive the relevance and effectiveness of active learning techniques in tertiary classroom settings?

3. What pedagogic implications can be drawn from the study of students' perception of active learning techniques in tertiary classrooms?

2. Literature Review

With an emphasis on universities, the current section looks at the idea of active learning, modern teaching techniques, and the dynamics of teaching and learning in higher education settings. The purpose of the review is to shed light on the efficacy and use of active learning strategies in classrooms. According to Michael (2006), students who actively participate in meaningful and reflective learning activities are said to be engaged in active learning. Further, according to Prince (2004), there are two primary categories of active learning: "engagement in educational methods" and "learner practice." This method places a strong emphasis on moving the learner's perspective from the teacher to themselves, encouraging personal and active participation in the educational process. In contrast to traditional passive learning approaches, which treat students as passive consumers of knowledge, active learning emphasizes student engagement and participation. Key components of active learning, according to Nelson and Crow (2014), include better retention of the material, higher levels of motivation among students, enhanced academic performance, and the development of critical thinking and problem-solving abilities through group projects and problem-solving exercises. Thus, educators may use techniques like group learning, writing, and conversation to promote learning, improve students' performance in the classroom, and pique their interest in the material. Hence, educators may use these suggestions to improve the way that material is delivered in the classroom, raise completion rates, boost student engagement, and help students acquire information and use it constructively to address issues in the real world.

The use of student engagement strategies is growing in higher education due to research showing that active learning approaches, rather than direct telling, which involves passive reception, may be more effective in enhancing student engagement (Fedoryshyn, 2018). Teaching and learning an activities that can be stressful when not well managed, especially when occurring during unprecedented circumstances like the COVID-19 pandemic (Khan et al., 2021), but active learning techniques in online teaching and learning in higher education can reduce stress in the teaching-learning process (Motade, 2022). Motade's study also revealed that learning activities can help students feel at ease and be more interested in learning effectively via the online mode.

Another related study regarding blended active learning techniques in higher education identified that a three active learning techniques model (Group Project, Peer Review, and Peer Teaching) was applied under the name of an eclectic approach within a course. The findings indicated that the students were active intrinsically and extrinsically and the approval rating was above 80% Moreira et al., 2018. Students were much more satisfied with question construction and jigsaw than with the concept mapping and team-learning modules in the online graduate anatomy course; this was as per a mixed-method analysis of active learning approaches among students (Bradley et al., 2023). Moreover, while non-minority students may not have shown much preference for active learning as a pedagogy, underrepresented racial minorities, a historically excluded group, reported higher satisfaction with the strategy. In general, using AL strategies seems to be preferred in higher education; this is especially so in the context of online learning. It can help to develop students' interest and help to improve the results of studying, as well as implementing the policy of integration in the class.

Teaching methods that engage students are effective in bridging the divide between class content and reality. Researchers from the Netherlands, South Africa, India, Oman, Spain, and others have shown that active learning methodologies are effective in students' engagement, course outcomes, and the process of learning (Blom et al., 2022; Andres, 2022; Marder, 2022). Studies have shown that the integration of active learning strategies enhances students' participation, performance on assignments, and examination results. Some of these methods include group assignments, peer assessment, and feedback, as well as group discussions. These results underscore the importance of incorporating active learning procedures to enhance the learning process and hence offer a more engaging environment in the learning process that will help in the application of the course content.

The effectiveness of different forms of activation in addressing the issue of students and improving their results has been proven in the recent past. These studies show that several pedagogical strategies such as problem-solving, case analysis, discussion, think-pair-share, flipped classroom, role play, tests, games, and quizzes are effective (Brame, 2016; Gosavi, 2022; Khan et al., 2023a; Settles, 2009; Wiles, 2016). These methods are considered to help engage students and counter the passivity of the lectures (Fedoryshyn, 2018). There is evidence to show that self-organized learning promotes memory, understanding, and the improvement of higher-order thinking skills (Konopka, 2015). Additionally, the results indicate that students with medium and high learning abilities benefit the most from these strategies (Sastry et al., 2016). These studies demonstrate how teaching is a dynamic process that aims to meet the demands of students and educational environments.

According to Marzano (2007), there is a need to develop a broad approach to the teaching process that includes not only the cognitive but affective domain as well to deliver the content effectively. To accommodate a variety of learning preferences and promote a positive learning environment, educators must modify their pedagogical approaches. Socrates and Aristotle's teachings emphasize the importance of active learning and practical education. Aristotle, in particular, stresses that true understanding comes from the actual doing of tasks, highlighting the value of experiential learning in education (Christie & de Graaff, 2017). Active learning has been

a subject of significant interest in higher education, as it offers a departure from traditional teaching methods by engaging students in meaningful and thoughtful activities (Bonwell & Eison, 1991). At the center of advocacy for promoting active learning is a reformation in teacher training. For effective teaching to take place, it is emphasized that, along with implementing student-centered learning activities in classrooms, teachers must be proficient in curriculum planning and teaching methods as a foundational part of their professional practice (Thornton, 2005).

Contemporary teaching methods in higher education have been the subject of scrutiny, particularly regarding the gap between formal course content and practical learning. This gap often stems from inadequate subject knowledge among instructors, which can lead to a deficiency in delivering effective lectures (Auerbach et al., 2018). Furthermore, educators must have greater confidence in the ways they teach, particularly when it comes to advanced scientific courses. In the context of learning styles, as described by Silverman (2022), it provides information that explains how students acquire knowledge while analyzing instructional methods. Some of the learning styles are Active/attentive learning style, sensory learning style, visual learning style, verbal learning style, sequential learning style, and global learning style. This information can be useful for teachers to determine how they need to address and teach students according to their learning style preferences (Felder, & Spurlin, 2005). Such research implies that certain approaches to learning can be more beneficial for children who have certain tendencies in the field of their sensory perceptions. Çeliköz et al. (2016) pointed out that they are the data processing theory, the gestalt theory, the behavioral learning theory, and the constructivist learning theory. As an example, in constructivist learning theory, active learning is much valued more than in any other learning theory, while in behavioral learning theory, the focus is on the interactions of the organisms with their surroundings. As the studies above showed, the notion of innovation in learning settings has become more significant due to the speed at which technology is advancing and the rate at which the world is changing. These changes have to be incorporated into education systems as the world becomes more dynamic, to prepare students for this environment.

3. Methodology

The application of active learning strategies in a small public university in northern Pakistan was examined in this study using a quantitative research approach. The students enrolled at the university that was the subject of the inquiry made up the target population for this study. There are twenty-eight departments and six faculties in the university, with a total enrollment of 4451 students. To gather data, 150 university students were chosen at random from the entire enrollment using basic random sampling. Data was gathered from male and female students on the university's various campuses. Based on the factors being studied and the study's aims, a structured questionnaire was created. To collect quantitative data, the questionnaire included both closed-ended and Likert scale items. A 5-point Likert scale was used to gather the responses (1 being strongly agree, 2 being strongly disagree, 3 being agree, 4 being neutral, and 5 being disagree).

To make sure they were carrying out the study in an ethical manner, the researchers asked for authorization from the university's ethics committee before collecting any data. The chosen participants were given the questionnaires and explained the purpose and goals of the study. The participants gave their agreement to participate in the study after being notified that their

information would not be shared. For analysis, all of the gathered data were processed through the use of the Statistical Package for the Social Sciences (SPSS). For the reason of the statistical analysis of the data gathered, the percentages and frequencies were used.

In the course of the study, the researchers ensured that they observed the following guidelines to uphold the research ethical standards. The participants were informed about the procedure of the study's "informed consent" and the participants were allowed to withdraw from the study at any point without any consequences. To ensure that participants were comfortable with the analysis and reporting of results, each participant was assured that their identity would be kept anonymous and that no data used in the analysis or reporting of results would reveal the identity of the participants. However, it is pertinent to point out some limitations of this study. This could have been because this study only targeted a small population from one university and hence the results may not be generalizable. Bias might occur when using questionnaires as the main data collection tool since respondent bias might be present. To improve the generalizability of the findings, a more extensive and diverse sample collection may be necessary in future studies.

4. Results and Discussion

This section will involve the presentation of the results obtained from the study, data analysis, and presentation. The following table represents the breakdown of the research respondents based on their age. Demographics of the research respondents: The total number of samples was 150; Age group one: 18-23 years 87. 3% (131); Age category 2: 24-28 years 12. The age distribution of respondents shows that 12% of the respondents are within the age bracket of 24-28 years. 6% (19). This shows that the majority of the respondents were between the ages of 18-23 years. Regarding the gender breakdown, 119 participants (79. 3 percent) were male while 31 participants (20. 3 percent) were female. When it comes to the distribution of the participants' academic programs, 98 of the respondents (65. 3%) were working towards their BS degree, while 51 of the respondents (34) MSc. degree and 1 respondent (0.7%) was currently studying towards an MS/M. Phil. program. 104 respondents (69. 3%) were residents of rural areas 46 respondents (30. 7%) were residents of urban areas. The following data represents the self-constructed scale of the respondents to the belief in the utilization of different learning techniques to support learning in the classroom.

Table No 1: Do you agree that active learning dependent only on in-class learning?
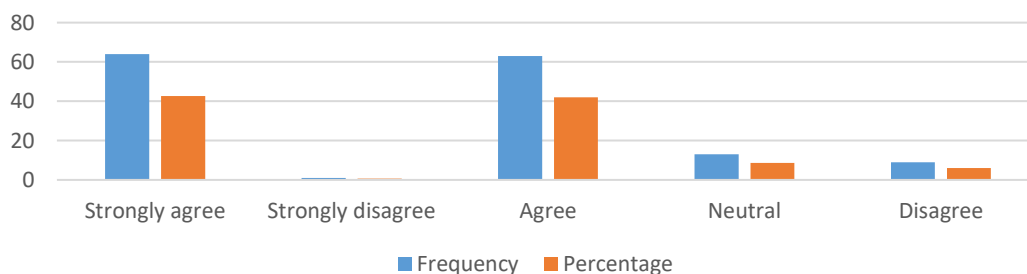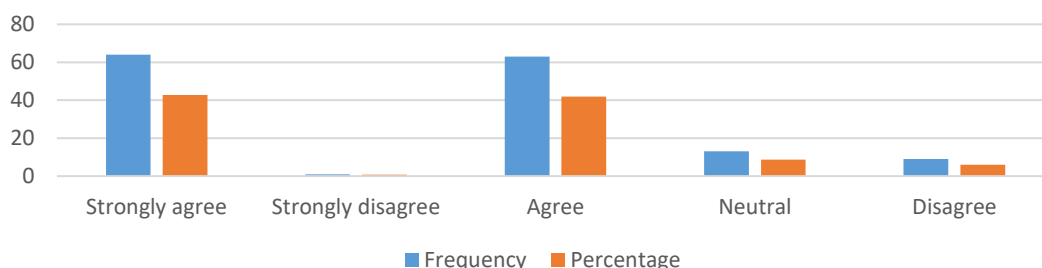
Table a shows that in response to the question "Do you agree that active learning is dependent only on in-class learning?," 31 (20.7%) of respondents strongly agreed and 50 (33.3%) agreed. Combined, this indicates that 81 (54%) respondents agreed with the statement that active learning depends solely on in-class learning. Additionally, 39 (26.0%) disagreed and 9 (6.0%) strongly disagreed with the statement. Furthermore, 39 (26.0%) respondents were neutral, indicating that they neither agreed nor disagreed with the notion that active learning is solely dependent on in-class learning.

**Table No 2: Do you think that group discussion is important for active learning?**

In response to the question, "Do you agree that group discussion is important for active learning?" Table 2 shows that 76 (50.7%) and 63 (42.0%) of the participants agreed with the statement. All in all, this suggests that most respondents—139 out of 150—agreed that group discussions are crucial for engaged learning. Moreover, 5 (3.3%) and 2 (1.3%) of the respondents strongly disagreed with the assertion. Furthermore, 4 (2.7%) of the respondents had no opinion; they were indifferent. It is clear from this that the respondents value group discussions to meet their objectives for active learning. In a similar vein, of those questioned about the value of employing multimedia to scaffold multimodal learning, 50 (33.3%) and 28 (18.7%) highly agreed. All in all, this suggests that most respondents—78, or 52% of the 150—agreed that using multimedia improves student learning. In addition, 12 (8.0%) and 25 (16.7%) of the respondents strongly disagreed with the statement. Furthermore, 35 respondents (23.3%) expressed neither agreement nor disagreement. The data therefore clearly shows that the respondents believe that employing multimedia to improve students' learning outcomes is a valuable technique.

Table No 3: Do you agree that cooperative teaching is important for active learning?
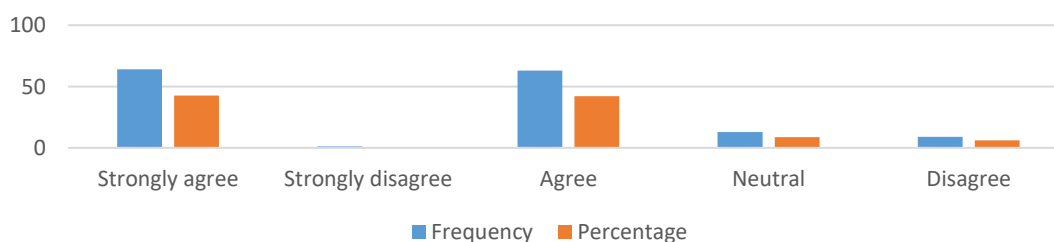
The respondents were asked questions related to the teacher's approach toward group learning, cooperation, and keeping a positive motivational environment in the classroom. As Table 3 illustrates, when asked about the importance of cooperative teaching for creating an active learning environment, 66 (44.0%) respondents strongly agreed and 68 (45.3%) agreed with the statement. Combined, this indicates that the majority, 134 (89.3%), agreed that cooperative teaching is important for active learning. Furthermore, only 1 (0.7%) respondent disagreed and 3 (2.0%) strongly disagreed with the statement. Additionally, 12 (8.0%) respondents were neutral, neither agreeing nor disagreeing. Similarly, in response to a related question regarding whether the participants agreed that a friendly class environment motivates students for active learning, 83 (55.3%) respondents strongly agreed and 52 (34.7%) agreed with the statement. Combined, this indicates that the majority, 135 (90%) out of 150 respondents, agreed that a friendly class environment motivates students to active learning. Furthermore, only 4 (2.7%) respondents disagreed and 3 (2.0%) strongly disagreed with the statement. Additionally, 8 (5.3%) respondents were neutral, neither agreeing nor disagreeing. Together, the responses to these two questions indicate that a majority of the respondents think that cooperative teaching and maintaining a friendly environment in the classroom correlate positively with creating an active learning atmosphere in the classroom.

Table No 4: Do you agree that teacher' aggressive approach nagatively affects students' active learning".
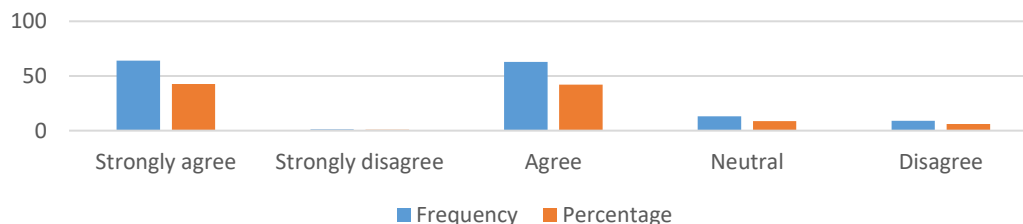
On the contrary, side, when asked about the negative effects of teachers' aggressive behavior in the classroom and its correlation with students' active learning, 45 (30.0%) strongly agreed and 69 (46.0%) agreed with the statement. Combined, this indicates that the majority, 114 (76%) out of 150 respondents, agreed that a teacher's aggressive demeanor affects students' learning (shown in Table 4). Furthermore, only 11 (7.3%) respondents disagreed and 4 (2.7%) strongly disagreed with the statement. Additionally, 21 (14.0%) respondents were neutral, neither agreeing nor disagreeing. Thus, it is evident that a teacher's aggressive conduct negatively affects students' active learning. Complementarily, when asked about the effects of classmates' rude/bullying behavior in the active learning environment, 49 (32.7%) strongly agreed and 49 (32.7%) agreed with the statement. Combined, this indicates that the majority, 98 (65.4%), agreed that classmates' bad behavior affects student learning. Furthermore, only 17 (11.3%) respondents disagreed and 6 (4.0%) strongly disagreed with the statement. Additionally, 29 (19.3%) respondents were neutral. Thus, it is evident that classmates' bad behavior does affect the active learning environment in the classroom.

In terms of pedagogic techniques to enhance active learning in the classroom and enhance students' motivation, a strong positive correlation was found between an active learning environment and group discussions, question-answer sessions, role play, and using storytelling techniques to teach curricular material.

Table No 5: Do you agree that storytelling in class can motivate students toward learning?
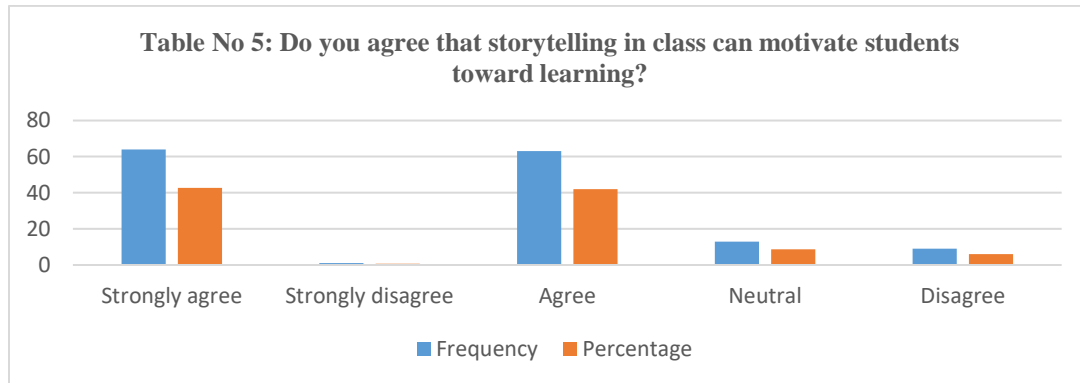

As shown in Table 5, in response to the question of whether the students agreed that using storytelling to teach content in the classroom can motivate students toward learning, 76 (50.7%) respondents strongly agreed and 63 (42.0%) respondents agreed with the statement. Combined, this indicates that the majority, 139 (92.7%) of the respondents agreed that storytelling in class can motivate students toward learning. Furthermore, only 1 (0.75%) respondent disagreed and 1 (0.7%) strongly disagreed. Additionally, 9 (6.0%) respondents were neutral, neither agreeing nor disagreeing with the statement. Thus, it is evident that the strategic use of storytelling to teach content can indeed motivate students toward learning. Relatedly, to engage students in the taught contents, using questions can be a useful way to focus students' attention. As a two-way process, the teacher can ask questions from the students and also encourage them to ask questions if any aspect of the taught content remains unclear to them. When asked about the correlation between question-answer time and active learning, 80 (53.3%) respondents strongly agreed and 53 (35.3%) agreed with the statement. Combined, this indicates that the majority, 133 (88.6%) out of 150 respondents, agreed that question sessions during lectures can motivate students towards learning. Furthermore, 6 (4.0%) respondents disagreed and 1 (0.7%) strongly disagreed. Additionally, 10 (6.7%) respondents were neutral, neither agreeing nor disagreeing with the statement. Thus, it is evident that the participant students perceived a strong positive correlation between question-answer sessions and students' motivation toward active learning.

Furthermore, as indicated in Table 6 below, the majority of students concurred that the effective accomplishment of learning goals is positively correlated with the use of active learning tactics, including role-playing, video recording, one-minute papers, and group discussions. In contrast, 77 (51.3%) and 48 (32.0%) respondents agreed with the statement. Overall, these statistics indicate that the majority of respondents, or 125 (83.3%), agreed that there is a substantial correlation between active learning methods and learning outcomes. Moreover, just 2 (1.3%) of the respondents strongly disagreed, while 3 (2.3%) disagreed. Furthermore, 20 respondents (13.3%) had no opinion, meaning they were indifferent to the message. Consequently, employing

active learning practices in the classroom and meeting learning objectives are significantly correlated.

Table No 6: Do you agree that there is significant relationship between active learning strategies and achieving learning outcomes?
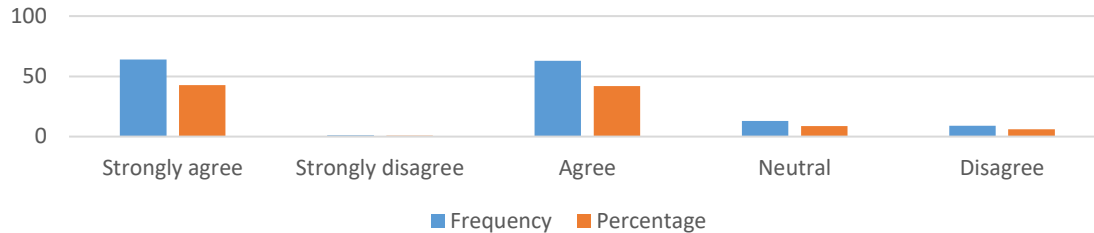
Participants in the study found a strong correlation between improved learning and polite debates and group discussions on the course material when it came to active engagement. Of the respondents, 83 (55.3%) agreed with the statement, while 58 (38.7%) strongly agreed. When taken as a whole, this suggests that the majority of respondents, 141 (94%), agreed with the assertion that student debate events are crucial for learning. Moreover, 1 strongly disagreed and 2 (1.3%) disagreed with the statement. Furthermore, 6 (4.0%) respondents had no opinion, neither agreeing nor disagreeing with the statement. This demonstrates that students view constructive discussion and debate activities as essential to successful learning. 61 (40.7%) respondents strongly agreed, and 61 (40.7%) respondents agreed with the statement on the participants' perceptions that active engagement in class improves students' learning. All in all, this suggests that most people—122, or 81.4%—agree that having students actively participate in class improves their learning. Moreover, just 2 (1.3%) of the respondents strongly disagreed, out of 5 (3.3%) who disagreed. Furthermore, 21 (14.0%) of the respondents expressed neither agreement nor disagreement. Students' reports of how much their learning is improved by active engagement in class demonstrate the importance of this point.

As per the participants, the involvement of students in extracurricular and co-curricular activities is crucial to elevating their level of active learning within the classroom. As can be seen from Table 7 below, 46 (30.7%) and 81 (54.0%) of the respondents agreed. When taken as a whole, these data show that 127 (84.7%) of the respondents, or the majority, believed that extracurricular activities were crucial for learning. Moreover, 2 (1.3%) and 4 (2.7%) of the respondents strongly disagreed. Furthermore, 17 (11.3%) of the respondents expressed no opinion, agreeing or disagreeing. This suggests that extracurricular activities are crucial for learning for the students.

Table No 7: Do you agree that co-curricular/extra- curriculum activities are important for learning?
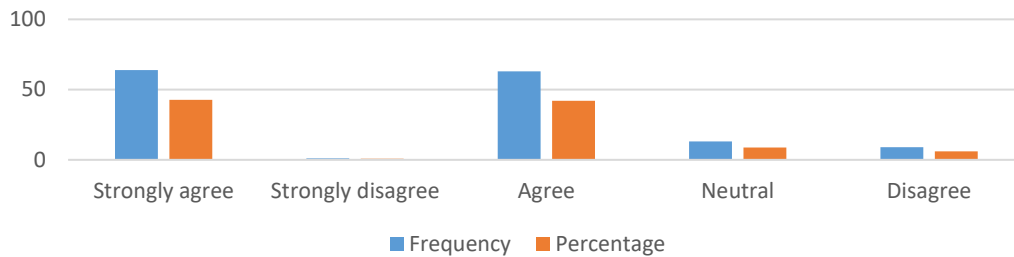
Students must be supported, motivated, and given scaffolding in their learning process to properly engage them. When asked if participants believed that instructors' motivating advice may enhance students' learning, 75 (50.0%) said they strongly agreed, and 65 (43.3%) said they agreed. Taken together, these show that the majority—140, or 93.3 percent—agreed that instructors' motivating advice may enhance students' learning. One responder (0.7%) strongly disagreed, yet the table reveals that no respondents disagreed. Moreover, just nine respondents (6.0%) expressed neither agreement nor disagreement. For this reason, encouraging advice from educators is crucial to enhancing student learning.

Regarding the general inquiry of whether the participants believed that students' feeling of security in the classroom was associated with their capacity to learn, 64 (42.7%) and 63 (42.0%) respondents expressed high agreement with the statement. This suggests that most respondents—127, or 84.7%—agreed that students learn more when they feel safe. Moreover, 1 (0.7%) and 9 (6.0%) of the respondents disagreed and severely disagreed, respectively. Furthermore, 8 (8.7%) respondents did not agree or disagree with the statement, indicating a neutral position.

Table No 8: When you feel secure then can you learn more?
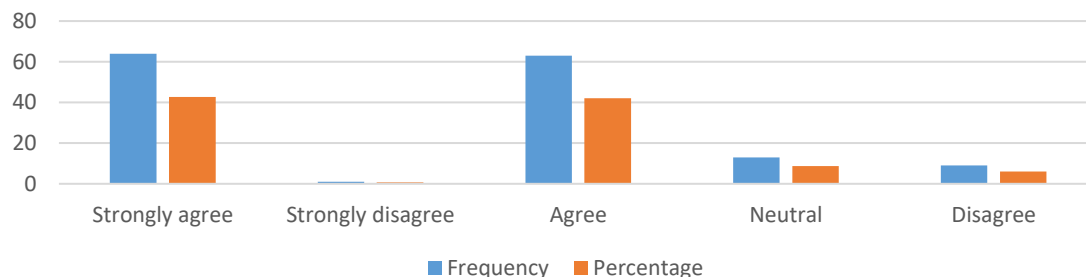
Lastly, in response to the question of whether the participants agreed that students' disagreement on a topic can increase their critical thinking, 27 (18.0%) respondents strongly agreed and 77 (51.3%) agreed with the statement. Combined, this indicates that the majority, 104 (69.3%) of the respondents agreed that students' disagreement on a topic can increase critical thinking. Furthermore, 9 (6.0%) respondents disagreed and 2 (1.3%) strongly disagreed with the statement. Additionally, 35 (23.3%) respondents were neutral, neither agreeing nor disagreeing. This shows that, for the respondent students, having the ability to disagree on a topic can lead to increased critical thinking.

5. Conclusion

This study sought to establish possibilities of actively engaging students at the university level in active learning approaches in classroom. The findings indicated that group discussion, and multimedia were positively regarded as teaching aids. Other strategies that was considered as useful for active learning included collaborative learning, use of storytelling and classroom environment. They pointed interactivity through questions and answer sessions during lectures as an important strategy that enhances students' attention. Some other motivational factors that were observed to have a positive influence on the learning achievement of students includes the quotations used by the teachers. The respondents also supported the statement that the students were compelled to attend the classes and any other co-curricular activity. Also, it was also noted that students embraced audiovisuals as well as constructive debate. These findings align with the previous studies that suggested that the level of learning can be enhanced by knowledge sharing which may help prepare students for learning in the 21st century as informed learners (Brame, 2016; Fedoryshyn, 2018; Gosavi & Arora, 2022; Khan et al., 2023b).

From the data collected in the current study, it is clear that there is need for teachers to employ more collaborative teaching, group discussion and the use of multimedia in their teaching. They should not be aggressive and help in maintaining order in the classroom during instructions by describing events and using comedy. Teachers should also allocate some time for questions and also allow positive discussion to occur. Further, students should be punctual, they should not be noisy and they should avoid being rude to fellow students. Teachers should allow students to engage in other activities apart from learning, and the use of negative words, feelings, or emotions should not be expressed in the class. Other important instructional aids include the provision of appropriate audio and video materials, and ensuring order in class.

Despite the contribution of this study in providing insights into active learning techniques in a public sector university in northern Pakistan, several limitations need to be kept in view. The sample was mainly male, unmarried, and from nuclear families whose parents were government employees and living in rural areas; therefore, the study may have suffered from sampling bias which limits the generalization of the results. Furthermore, the respondents were only 150 students from a university, which may be a small sample. Further research could benefit from the inclusion of a larger sample of students to increase the validity of the study. The methodological limitation of the study is the limitation of external validity due to the study being conducted in one university in a particular geographical location. Different universities or educational settings may yield different results. In addition, the use of a questionnaire to collect data may have led to response bias and, therefore, affected the validity and credibility of the findings. The study does not include fine-grained context information about particular classrooms and their practices concerning teaching and learning, which may have an impact on the effectiveness of active learning strategies, thus indicating the need for future research. Further, the temporal factor of the study conducted at a particular time can also create limitations regarding the consistency of the study results over time since policies and practices in education may vary over some time. Despite certain limitations, however, the study offers insights and recommendations for improving engagement and learning activities in classrooms through active learning processes.

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