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# Perception of Students Towards Active Learning in HEIs of Oman and Its Impact on Academic Performance

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**ABSTRACT**

This study delves into the perception and impact of Active Learning (AL) practices among students in Omani Higher Education Institutions (HEIs). The study is conducted based on three primary objectives: 1. Assessing the prevalence of AL implementation in Omani HEIs. 2. Understanding students' perception of AL practices in Omani HEIs. 3. Evaluating the impact of AL on students' academic performance Employing a survey methodology, the study gathered data from 110 students enrolled in the Faculty of Business Studies at Arab Open University, Oman. Data analysis was conducted using SPSS Amos version software. The findings reveal that AL implementation in Omani HEIs is moderate. Students hold a favorable perception of AL, with 'Engagement of Students' emerging as the most positively perceived aspect. Notably, AL positively influences students' academic performance, with 'Engagement of Students' identified as the most significant predictor of performance. Interestingly, male students exhibited a stronger perception of AL and experienced greater performance benefits compared to their female counterparts. Considering these findings, the study recommends that HEIs in Oman actively promote the use of AL to enhance student engagement, motivation, and academic performance. Specifically, HEIs should prioritize developing and implementing AL strategies that foster active engagement among students.

## 1. Introduction

Revan (1980) developed the concept of Active Learning as a problem-solving method and teaching pedagogy characterized by acting and reflecting on the results (Abramovich et al., 2019). Active Learning involves students in doing things and thinking about the things they are doing," and "students are involved in higher-order thinking (analysis, synthesis, evaluation) and students are engaged in activities (e.g., reading, discussion, writing)" (Bonwell & and Eison 1991). It was introduced as a part of changing the educational paradigm from a teaching-centered approach to a learning-centered approach (Koyoma & Mizokami, 2018). Active Learning is entirely student-centered, with instructor-led activities in contrast to traditional classroom lecturing (Hartikainen et al., 2019). Active Learning strategies help improve

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students' acquisition of competencies specific to their field and generic competencies like communication, teamwork, leadership, and similar skills. (Fernándeza et al., 2019).

Active Learning is essential for better teaching and Learning (Amare & Dagnew, 2020). It is based on constructivist theories of Learning, which say that people construct knowledge by discussing, doing, and experiencing things rather than passively taking in information. The constructivist view of Learning encourages students to use active classroom techniques, like real-world problem-solving, experiments, and project-based Learning. It enables them to reflect on and discuss what they are doing and how their levels of understanding change. The theory also says that learners build upon their knowledge gained from previous experiences, and this prior knowledge influences the new knowledge that individuals will construct because of new learning experiences (Bada & Olusegun, 2015; Qureshi et al., 2023).

## 2. Literature Review

Numerous studies have been conducted on Active Learning, considering different aspects of Active Learning. The research studies have been conducted primarily about specific disciplines focusing on the impact of specific methodologies involved in Active Learning. Most studies reported a positive link between the Active Learning pedagogies and various dependent variables, including students' academic performance, and very few studies reported it to be less effective when compared to classroom learning. The Active Learning literature conducted so far mainly focuses on one or more pedagogies and their impact on student performance. This part of the literature review presents relevant research studies favoring five aspects of Active Learning pedagogy: student engagement, collaboration, feedback, autonomy, and flexibility.

In this study, researchers investigated five aspects of Active Learning. 1. **Student engagement.** Previous studies indicate that student engagement will positively impact academic performance, including achievement, motivation, and persistence. A proper student's classroom engagement will help students to perform better academically (Fredricks et al., 2004). Wang & Eccles (2013) stated that if students are more engaged in the classroom tend to have higher academic performance over time. Reeve & Tseng (2011) introduce the concept of agency as a fourth aspect of students' Engagement, alongside behavioral, emotional, and cognitive Engagement and argue that students' sense of agency, or their belief in their ability to influence their Learning, is positively related to academic performance. Dotterer & Lowe (2011) examine the influence of classroom context on students' Engagement and academic achievement and suggest that positive classroom environments, characterized by supportive relationships and engaging instructional practices, are associated with higher Engagement and academic performance. 2. The second element of this study's focus is **collaboration** in classes and lectures. Johnson, Johnson, & Smith (1998) stated that students who engaged in collaborative Learning achieved higher academic performance than those who learned individually. The collaborative nature of the learning process enhanced students' critical thinking, problem-solving skills, and overall academic performance, which shows that collaboration among the students needs to be promoted. Slavin's (1996) review article provides an overview of research on collaboration learning and its impact on academic achievement. The author concludes that collaborative Learning positively influences students' academic performance across subjects and grade levels. Collaborative activities enhance students' understanding of concepts, promote higher-order thinking, and improve academic achievement. Webb (2009) focused on promoting collaborative dialogue among students for better academic performance and stated that when teachers facilitate meaningful discussions and interactions among students, it leads to improved academic outcomes. Collaborative dialogue helps students develop a deeper understanding of concepts, refine their thinking, and enhance academic performance. Dillenbourg (1996)

provides a comprehensive overview of collaborative Learning and its impact on academic performance. The author emphasizes that collaborative Learning fosters active Engagement, social interaction, and knowledge construction among students, leading to improved academic performance as students learn from each other, share ideas, and collectively solve problems. Collaborative Learning enhances critical thinking, problem-solving skills, and understanding of concepts, leading to improved academic outcomes. 3. Similarly, **students' feedback** can significantly impact their academic performance. Hattie & Timperley (2007) highlight the importance of feedback in improving student learning outcomes. It emphasizes that effective feedback should be timely, specific, and focused on the task rather than the individual and concludes that feedback has a strong positive effect on student achievement. Nicol & Macfarlane-Dick (2006). stated that feedback should be aligned with learning goals, provide clear guidance on improvement, encourage students to take responsibility for their Learning, and highlight such feedback's positive impact on student performance. When students receive feedback that helps them understand their strengths and weaknesses, they are more likely to engage in effective learning strategies and improve their performance (Black et al., 1998). Practical, timely, specific feedback focused on the learning process can enhance students' self-regulation, motivation, and Engagement, ultimately leading to improved learning outcomes. 4. Additionally, **classroom flexibility** can positively impact students' academic performance. Tutors should provide a flexible and supportive classroom environment to engage students in their Learning, positively impacting better academic performance (Rimm-Kaufman et al., 2011). Flexibility in the classroom can also positively influence students' emotions toward Learning, which will positively impact academic performance. When students feel more autonomous and have choices in their Learning, they experience more positive emotions, such as enjoyment and pride, leading to better academic outcomes (Pekrun et al., 2005). In another study, Patall, Cooper, & Robinson, (2008) stated that class flexibility also positively affects student motivation. When students have more choices in the classroom, they tend to be more intrinsically motivated, leading to improved academic performance. Classroom flexibility can positively impact students' academic performance (Reeve et al., 2006). 5. Lastly, **classroom autonomy** refers to the extent of control, freedom, and independence students have in Learning. There is a positive correlation between autonomy support and academic performance across various educational levels and subjects, and autonomy supports higher academic achievement (Reeve et al., 2011). Jang, Kim, & Reeve (2016) stated that autonomy support enhances students' motivation and self-regulation, leading to improved academic outcomes. Patall, Cooper, & Robinson (2008) also stated that students with more autonomy in the classroom tend to perform better academically. Active Learning strategies are increasingly emphasized in educational institutions; a thorough comprehension and understanding of how students feel about Active Learning and how it could affect their academic performance need to be improved. Some professors in HEIs still favor employing traditional teaching techniques because they find them easy, and others believe that Active Learning techniques are challenging and time-consuming. This study will provide academicians, professors, and policymakers with valuable information on why one should implement Active Learning and how it will influence teaching, Learning, and academic performance, which will help the academician improve teaching and learning methods and students' performance. This paper has five sections: the introduction, the literature review, the methodology used, the findings, and the discussion, followed by the conclusion.

This study investigates the five elements (aspects) of Active Learning- student engagement, feedback, collaborative Learning, flexibility, and autonomy- that influence students' academic performance more. This study examines the relationship between students' perception of these Active Learning elements and academic performance. Understanding how active learning practices in the universities of Oman influence student learning and academic performance

would be insightful. This study is conducted based on the following objectives. 1. To measure the extent to which active Learning is regularly implemented in the classrooms of the HEIs of Oman. 2. To understand the students' perception towards Active Learning in HEIs of Oman, and 3. To examine how Active Learning impacts students' performance. In addition, this study aims to answer the following two main questions. 1 What Active Learning practices should be implemented to enhance teaching and Learning in the HEI? 2. What aspect of Active Learning is helpful for students to improve their academic performance? The research studies so far have been conducted primarily about specific disciplines focusing on the impact of specific methodologies involved in active Learning. Most studies reported a positive link between the Active Learning pedagogies and various dependent variables, including students' academic performance, and very few studies reported it to be less effective when compared to classroom learning. The Active Learning literature conducted so far mainly focuses on one or more pedagogies and their impact on student performance.

## 3. Research Methodology

The researcher collected data for the study in three parts. The necessary literature was studied to obtain appropriate information on the topic to get started. Second, the objectives and research questions were created to get the direction for this research. Hypotheses were formulated to determine the ways of measuring the topic. Third, data collection tools were determined. The researchers followed a procedure when collecting data for the study. The questionnaire was written in English. Quantitative and qualitative data were performed to answer the research question and achieve the objective. The quantitative data were collected, coded, tabulated, analyzed, and interpreted in a way that supported the study's findings. This study follows descriptive and analytical approaches. A questionnaire consisting of three sections was developed.

Section one comprises questions about the demographic variables of the student respondents. Section two consists of twenty-five questions that aim to measure the students' perception of Active Learning elements such as "Student engagement," "Collaboration," "Feedback," "Flexibility," and "Autonomy." These questions were on a five-point Likert scale, allowing student respondents to show their perception of Active Learning practices with various options from Always to Never. Section three consists of ten Likert-scale multiple-choice questions ranging from "Strongly Agree to Strongly Disagree," created to measure the student's academic performance. The elements of Active Learning were taken as the independent variable, and students' performance was the dependent variable. The collected primary data was processed using Amos-version 20 of the SPSS software application, in which various statistical tools were used to test and validate the study's hypothesis. Convenience sampling was used, and the respondents were students chosen from the faculty of business studies at Arab Open University, Oman. A total of 200 questionnaires were distributed, and finally, only 110 students agreed to participate in the survey, which made up the sample size of this study. The following hypotheses were formulated, tested, and validated in this study:

1. $H_0$: There is no significant difference between the Male and Female students regarding the perception of Active Learning.
2. $H_0$: There is no significant difference between the Male and Female students concerning performance due to Active Learning.
3. $H_0$: There is no significant relationship between the Active Learning aspects and Students' Performance.

## 4. Data Analysis & Results

### 4.1. Demographic Profile of the Students

From the Table 1, it is inferred that Male students (54.55%) are more than female students (45.45%). The age range of the students is between 18 to 33 years, and 46% belong to the age group of 26 to 30 years. Regarding the Year of Study, 39.09% of the students belong to the Third Year, followed by the Fourth Year (29.09%). Most students (60.91%) had scored a 2 – 3 GPA in the last semester.

Table 1.
*Demographic Profile of the Students* (Sample Size = 110)

| Variables | Options | Frequencies | (%) |
|---|---|---|---|
| Gender | Male | 60 | 54.55 |
| | Female | 50 | 45.45 |
| Age | 18 – 25 Years | Open-ended Question | 33.00 |
| | 26 – 30 Years | (Scale Variable) | 46.00 |
| | 31 to 33 Years | | 21.00 |
| Study's Year | First | 10 | 09.09 |
| | Second | 25 | 22.73 |
| | Third | 43 | 39.09 |
| | Fourth | 32 | 29.09 |
| GPA in last semester | Below 2 | 13 | 11.82 |
| | 2 to 3 | 67 | 60.91 |
| | 3 to 4 | 30 | 27.27 |

Source: Primary Data

### 4.2. Students' Perception of Active Learning. - Descriptive Analysis- Mean Analysis

From the Table 2, based on the mean score, it is inferred that students' perception of 'Engagement of Students' (M = 21.65) is more than others, and students' perception of 'Flexibility' (M = 17.30) is lesser than other aspects of Active Learning. It also inferred that the students' perception of the various aspects of Active Learning is above the average level since all the Mean values are above 17 out of 25 (68%). The overall Mean Score of the student's perception of the various aspects of Active Learning is 97.62, 78.10% (97.62 / 125 x 100). They pointed out that the students' perception of the various aspects of Active Learning is above 78%.

Table 2.
*Descriptive Statistics*

| Variables | N | Mean | SD |
|---|---|---|---|
| Engagement of Students | 110 | 21.65 | 3.544 |
| Collaboration | 110 | 20.59 | 3.781 |
| Feedback | 110 | 18.66 | 4.328 |
| Flexibility | 110 | 17.30 | 5.362 |
| Autonomy | 110 | 19.43 | 4.545 |
| **Students' Perception of Active Learning** | **110** | **97.62** | **9.236** |

Source: Primary Data

### 4.3. Inferential Statistical Analysis

An independent-sample t-test was conducted to compare the significant differences between Male and Female students concerning the perception of the aspects of Active Learning.

Table 3.
*Gender – Perception on the Active Learning– Independent 'T' Test*

| Variables | Gender – perception of Active Learning | | | | | | t - value | p – value |
|---|---|---|---|---|---|---|---|---|
| | Male | | | Female | | | | |
| | N | Mean | SD | N | Mean | SD | | |
| Engagement | 60 | 21.20 | 3.652 | 50 | 20.45 | 3.255 | 3.670 | 0.005** |
| Collaboration | 60 | 20.88 | 3.747 | 50 | 19.42 | 3.702 | 3.494 | 0.009** |
| Feedback | 60 | 18.95 | 4.225 | 50 | 18.01 | 3.936 | 2.275 | 0.031* |
| Flexibility | 60 | 17.13 | 5.456 | 50 | 16.40 | 4.282 | 2.128 | 0.042* |
| Autonomy | 60 | 19.45 | 4.302 | 50 | 18.26 | 3.775 | 4.296 | 0.000** |
| **Students' Perception of Active Learning** | **60** | **95.61** | **10.695** | **50** | **92.54** | **8.265** | **4.563** | **0.000**** |

Source: Primary Data
(**1% Level of Significance and *5% Level of Significance)

As the *P* values are lesser than Sig. Value (0.01 and 0.05) in all the cases and the perception of Active Learning Score (0.000) aspects, the Null Hypotheses are rejected. Based on the mean score of perception on the aspects of Active Learning, the mean score of male students (M = 95.61) is more than that of female students (M = 92.54). This indicates that male students have perceived more of the various aspects of active Learning than female students. It is also inferred that male students have a little more Active Learning than their counterparts. Hence, it is concluded that there is a statistically significant difference between the Male and Female students concerning the perception of the aspects of Active Learning.

### 4.4. Impact of Active Learning on Students' Performance

An independent-sample t-test was conducted to compare the difference between the Male and Female students concerning performance due to Active Learning.

Table 4.
*Gender – Impact of Active Learning on Students Performance- Independent 'T' Test*

| Variable | Gender – performance | | | | | | t - value | p – value |
|---|---|---|---|---|---|---|---|---|
| | Male | | | Female | | | | |
| | N | Mean | SD | N | Mean | SD | | |
| **Students' performance** | **60** | **42.36** | **7.898** | **50** | **40.28** | **8.696** | **5.721** | **0.000**** |

Source: Primary Data (** 1% Level of Significance)

As the *P* value (0.000) is lesser than Sig. Value (0.01) in the above case, the Null Hypothesis is rejected. Based on the mean score, the mean score of the Impact of Active Learning on Students' Performance for male students (M = 42.36) is more than for female students (M = 40.28). This indicates that the male students have perceived more impact of Active Learning on their performance than the female respondents. Hence, it is concluded that there is a statistically significant difference between Male and Female students concerning performance due to Active Learning.

### 4.5. Relationship Between Active Learning Aspect & Student Performance- Correlation

A Pearson product-moment correlation was run to determine the relationship between the Active Learning aspects and Students' Performance.

Table 5.
*Relationship Between Active Learning Aspect & Student Performance- Correlation Analysis*

| Variables | N | *'r'* Value | *P* - Value | Relationship | Remarks | |
|---|---|---|---|---|---|---|
| | | | | | Significant | Result |
| Engagement – Students' Performance | 110 | 0.821** | 0.000 | Positive | Significant | Rejected |
| Collaboration – Students' Performance | 110 | 0.756** | 0.000 | Positive | Significant | Rejected |
| Feedback – Students' Performance | 110 | 0.712** | 0.000 | Positive | Significant | Rejected |
| Flexibility – Students' Performance | 110 | 0.525** | 0.000 | Positive | Significant | Rejected |
| Autonomy – Students' Performance | 110 | 0.689** | 0.000 | Positive | Significant | Rejected |
| **Active Learning– students' performance** | **110** | **0.837**** | **0.000** | **Positive** | **Significant** | **Rejected** |

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

As the P values are lesser than Sig. Value (0.01) in all the above relationships, the Null Hypotheses are rejected. Moderate positive and significant correlations exist between the Active Learning aspects and Students' Performance. Out of the five aspects of Active Learning, 'Engagement' (r = 0.821) has more relationship with Students' Performance, and 'Flexibility' (r = 0.525) has a lesser relationship with Students' Performance when compared with other aspects. Active Learning has a high and significant positive relationship (r = 0.837) with Students' Performance.

### 4.6. Multiple Regression Analysis

Multiple Regression was conducted to determine the best linear combination of the five Aspects of Active Learning to predict the Students' Performance.

Table 6.
*Active Learning Aspect- Students Performance – Multiple Regression Analysis*

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -1.014 | .455 | | -2.674 | .025 |
| | **Students Engagement** | **.361** | **.043** | **.354** | **5.364** | **.000**** |
| | Collaboration | .302 | .047 | .318 | 4.540 | .000** |
| | Feedback | .206 | .055 | .215 | 3.753 | .000** |
| | Flexibility | .130 | .064 | .126 | 2.032 | .040* |
| | Autonomy | .232 | .051 | .221 | 3.755 | .000** |

Dependent Variable: Students' performance

The combination of all the five independent variables significantly predicts the dependent variable, i.e., Students' Performance, F (5, 104) = 235.348, P values are lesser than 0.01 and 0.05 (Sig. Value 2-tailed) and Adjusted R Square is 0.728 or 73% which is significant effect according to Cohen. Out of five independent variables, 'Engagement of students' (0.354) is the most vital influencing aspect that predicts the students' performance. From the unstandardized coefficient, it is found that the one-unit increase in the 'Engagement of students' would increase the students' performance by 0.361 units. Collaboration (0.318), feedback (0.215), Flexibility (0.126), and Autonomy (0.221) also contribute to Students' Performance but less than the 'Engagement of students' aspect.

## 5. Limitations & Scope for Future Research

The study's results have given the researcher some new and valuable insights but have a few limitations. 1. Due to the scarcity of time and financial resources, this research survey covers only the students from the business faculty at Arab Open University, Oman. Some student respondents did not show interest in participating in this survey and convincing them to participate was challenging due to their busy schedules. One hundred ten respondents may not fully represent the view of the students at Arab Open University and other universities in Oman. The findings of this research largely depend on the quantitative methodology of data collection (conversion of qualitative methods into quantitative methodology using the Likert scale); therefore, it is restrictive. Here, the researcher assumes that all the students at the universities in the Sultanate of Oman will have the same opinion regarding the aspects of Active Learning used in the study, which may not be accurate in practice because professors in universities use different approaches to Active Learning. These limitations may reduce the generalization of the results of this research. Therefore, these conceptual and methodological limitations need to be considered when doing research in the future, and these limitations may reduce the ability to generalize the result of the study. Still, these limitations provide possible avenues for future research. For arriving at generalization, conducting more analytical research on the Active Learning practices in the universities of Oman with a bigger sample size is highly important. While the scope of this research was restricted to AOU Oman, similar analysis can be carried out in other universities in GCC countries and other parts of the world for comparison purposes.

## 6. Conclusion & Discussion

This research study investigated a prominent topic of Active Learning and its impact on students' academic performance. From the findings of this study, it can be easily understood that Active Learning not only influences the teaching and Learning process but, if appropriately implemented, can positively impact students' Academic Performance. Active Learning will enable students to participate in Learning, actively apply their ideas and experience to real-life circumstances, and develop critical thinking and problem-solving abilities. Proper implementation of Active Learning strategies is essential for any academician to ease the teaching and Learning process. It will help students gain knowledge quickly and retain their knowledge, which will undoubtedly have positive results on their academic performance.

Additionally, Active Learning encourages students' collaboration, Engagement, and teamwork, contributing to academic performance. The following are the exact findings of this research study. It has been found that students' perception of various aspects of Active Learning is above the average level. Similarly, out of five independent variables, which are the aspect of Active Learning, it is found that student perception of Engagement is more than another aspect, and students' perception of the Flexibility aspect of Active Learning is less compared to other aspects of Active Learning. Besides that, male students have perceived the various aspects of Active Learning more than female students at Arab Open University. It is also inferred that male students have a little more Active Learning than their counterparts. The impact of Active Learning on Students' Performance for male students is more significant than for female students. This indicates that the male students have perceived more impact of Active Learning on their performance than the female respondents. Hence, it is concluded that there is a statistically significant difference between Male and Female students concerning performance due to Active Learning. Moderate positive and significant correlations were found between the Active Learning aspects and Students' performance. Out of the five aspects of Active Learning, 'Engagement' has more of a relationship with Students' Performance, and 'Flexibility' has a lesser relationship with Students' Performance when compared with other aspects. Active

Learning has a significant positive relationship with Students' Performance. All the independent variables significantly predict the dependent variable, i.e., Students' Performance. Out of five independent variables, 'Engagement of students' is the most vital influencing aspect that predicts the Students' Performance, and flexibility is the weakest influencing aspect that predicts the students' performance.

The result shows that students at Arab Open University positively perceive Active Learning, suggesting that this teaching approach effectively engages and motivates students. Active Learning methods, such as group discussions, problem-solving activities, and hands-on experiences, enhance students' understanding, critical thinking skills, and overall satisfaction with the learning process. The positive perception of Active Learning among students may be attributed to several factors. Firstly, Active Learning encourages student participation and collaboration, fostering a sense of ownership and responsibility for learning. This active Engagement may lead to a deeper understanding of the subject matter and increased knowledge retention. This study reveals an interesting perspective on students' perception of Active Learning. Students generally view the engagement aspect of Active Learning more positively than other aspects while perceiving flexibility in Active Learning to be relatively lower. The higher perception of students regarding the engagement aspect of Active Learning indicates that they feel more involved and invested in their Learning experiences when Active Learning strategies are employed. This finding aligns with the fundamental principle of active Learning, which emphasizes student participation and interaction. It suggests that students appreciate the opportunities to actively participate, collaborate, and contribute to their Learning process. This positive perception of Engagement may be attributed to the increased sense of ownership and autonomy that Active Learning provides, allowing students to take control of their Learning journey.

On the other hand, the lower perception of flexibility in Active Learning suggests that students may perceive limitations or constraints within the Active Learning environment. This finding raises questions about the extent to which students feel empowered to make choices and adapt the Learning process to their individual needs and preferences. Students may perceive Active Learning as more structured or rigid, potentially limiting their ability to explore alternative approaches or adjust their Learning pace. This lower perception of flexibility may hinder students' autonomy and motivation to engage actively in Learning. The contrasting perceptions of Engagement and flexibility in Active Learning highlight the importance of considering multiple dimensions when implementing Active Learning strategies. While Engagement is crucial for fostering student motivation and active participation, addressing students' need for flexibility and adaptability in their Learning experiences is equally important. By incorporating more flexible elements into Active Learning approaches, educators can empower students to take ownership of their Learning while accommodating their learning styles and preferences.

Furthermore, this finding also emphasizes the significance of understanding students' perceptions and perspectives in educational research. It highlights the need for educators to regularly assess and evaluate students' experiences and perceptions of different instructional approaches. By doing so, educators can gain valuable insights into students' preferences, concerns, and areas for improvement, allowing them to make informed decisions and adjustments to enhance the effectiveness of Active Learning strategies. The research findings indicate a notable difference in the perception of Active Learning between male and female students. Male students tend to perceive Active Learning more than their female counterparts. This suggests that male students may have a greater appreciation for the benefits and effectiveness of Active Learning methods.

Furthermore, the findings reveal that male students also perceive a more significant impact of Active Learning on their academic performance than female students. One possible interpretation of these findings could be related to societal and cultural factors. Male and female students perceive and value different Learning approaches due to the existing culture in society. Due to societal expectations or personal experiences, male students may feel more confident and comfortable engaging in Active Learning methods than their counterparts, leading to a higher perception of its effectiveness. On the other hand, female students may feel shy, discouraging them from fully embracing Active Learning. This could result in a lower perception of its impact on their academic performance. It is crucial to consider the potential influence of societal expectations and gender norms when interpreting these findings. The research findings suggest a moderate positive and significant correlation between Active Learning and students' performance. This implies that students actively engaged in their Learning process tend to perform better academically. The significance of Engagement in students' performance can be attributed to several factors. Firstly, active Engagement allows students to understand the subject matter better. By actively participating in discussions, asking questions, and applying concepts to real-life situations, students can connect the dots and make meaningful connections, enhancing their learning experience. One possible explanation for the weaker relationship between flexibility and performance could be that while flexibility allows students more control over their learning process, it may also introduce challenges regarding time management and self-discipline. Students given less flexibility may need help staying organized and motivated, leading to a potential decline in performance.

Active Learning has proven to be an effective and robust approach to improving students' academic performance, critical thinking skills, and classroom engagement. It helps students learn; tutors and professors can create a dynamic and stimulating environment that fosters more profound understanding and long-term knowledge retention. As we continue to explore new teaching methods, it is imperative that Active Learning remains at the forefront of educational practices, ensuring that students are equipped with the necessary skills to thrive in an ever-evolving world. Implementing and embracing Active Learning not only transforms the classroom experience but also empowers students to become lifelong learners and ready to tackle the challenges of the future.

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