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STUDENT ACHIEVEMENT SPECTRUM: INVESTIGATING PEDAGOGICAL DIVERSITY AND TEACHER METHODOLOGY PERCEPTIONS

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ABSTRACT

The study examined the relationship between teachers' teaching methods and the academic performance of 150 undergraduate and Master's students from various fields of study. It contains a structural sample strategy to ensure the inclusion of individuals from various fields. A quantitative research methodology was used to administer a structured survey questionnaire, which was designed through a systematic literature review, in order to analyze students' diverse perspectives on teaching methods, academic performance, and demographic information. The independent variables consisted of perceptions of Teaching Methodologies and different pedagogical approaches, whereas the academic performance of students was the dependent variable. The statistical studies performed using SPSS software encompassed descriptive, regression, and factor analyses, revealing the connections between teaching approaches and academic success. The results emphasized the crucial significance of interactive, learner-focused instructional approaches in promoting enhanced academic performance. The active participation of students and the use of diverse teaching methods had a substantial impact on student achievement, emphasizing the importance of flexible instructional strategies. Nevertheless, traditional teacher-centered approaches demonstrated restricted influence. Although this study has limitations in terms of sample size and reliance on self-reported data, it highlights the need for an adaptable educational approach that incorporates evolving teaching methods to improve student outcomes. The research provides useful insights into effective pedagogical methods, advocating for a versatile and learner-centered educational environment. The study highlights the need for a better understanding of teaching methods' impact on academic performance to improve educational outcomes, resource allocation, curriculum development, and policy formulation.

Keywords: Student academic performance; Teaching methodologies; Students.
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INTRODUCTION

According to Tsai (2012), a teacher plays a crucial role in the process of teaching and learning since they adhere to the curriculum to ensure that all essential knowledge is imparted during the academic year. A teacher is a crucial educator, providing knowledge, guidance, and instruction, and their professionalism is honed through specialized training or a combination of experience. Conventional instructional methods often prioritized theoretical comprehension over practical application, leading to passive knowledge reception. This resulted in students relying heavily on memory and struggling to actively engage with the information, limiting their ability to apply concepts to real-life situations (Tsai, 2012). Contemporary teachers often employ the student-centered methodology to foster student engagement, analytical inquiry,

critical reasoning, and enjoyment. Hennessy et al. (2005) explored that Student-centered instruction (SCI) in higher education involves transferring course content responsibility to students, using methods like active learning experiences, critical thinking problems, simulations, and cooperative learning. Teachers retain responsibilities like delivering lectures, creating assignments, and evaluating performance. SCI leads to increased motivation, improved knowledge retention, enhanced comprehension, and more favorable attitudes toward the subject, as demonstrated by educational research (Matobobo & Risinamhodzi, 2022). Transferring knowledge necessitates teachers to employ the suitable approach and pedagogy that most effectively caters to the learner's needs and aligns with the objectives and expected outcomes. A significant portion of students' low academic performance in many subject areas is mostly attributed to the utilization of unsuitable teaching methods by teachers to impart knowledge to learners. Therefore, it is essential for teachers to be familiar with a wide range of teaching strategies (Shoaga, 2015).

Moreover, teaching is a systematic procedure that aims to facilitate positive transformations in learners in order to attain particular objectives (Ayeni, 2011). The primary objective of education at all ages is to induce a profound transformation in the student. The study provides educators with practical implications to enhance instructional approaches, tailor them to various learning types, and establish a more efficient learning environment. Gaining insight into the impact of teachers' instructional strategies on pupils' academic advancement is essential for enhancing educational methodologies and equipping forthcoming generations for triumph in an ever-evolving society (Shoaga, 2015). This study examines the correlation between teachers' instructional approaches and students' academic performance. The study addresses the effects of several pedagogical methods, such as traditional lectures and interactive learning, on student engagement, memory consolidation, and critical thinking skills. The study also investigates the influence of instructional approaches on students' attitudes toward learning, the practical application of knowledge, and the cultivation of crucial abilities for success beyond the academic realm. Teaching is a systematic procedure that aims to facilitate positive transformations in learners in order to attain particular objectives (Ayeni, 2011).

The importance of pedagogical approaches, such as activity-based teaching and continuous progress analysis, in improving students' understanding, knowledge, and presentation skills. It emphasizes the need for regulations at every level, including the principal’s role, teacher level, and student level, and acknowledgment of both students and teachers' efforts (Prosser & Trigwell, 2014). Implementing activity-based learning and promptly diagnosing student inadequacies have a substantial impact on enhancing students' academic achievements. This approach facilitates a more profound comprehension of scientific concepts, improves the retention of knowledge, and sparks a genuine passion for the subject. Additionally, it cultivates self-confidence, public speaking abilities, and a long-lasting passion for science (Sanchez-Martin et al., 2018). Teachers significantly impact students' academic achievement in modern educational settings. However, the impact of various teaching approaches on learning outcomes is complex. Identifying the most effective approach for academic achievement, engagement, knowledge retention, and critical thinking skills is challenging. Understanding this influence is crucial for educators to tailor their teaching methods to students' diverse learning styles and improve educational practices.

Furthermore, the study evaluates the relationship between teaching methods and academic performance, assessing their impact on student involvement, motivation, memory retention, and analytical thinking skills, as well as their effectiveness in accommodating different learning preferences. Furthermore, it examines the long-lasting effects of these methods on students' attitudes, utilization of knowledge, and acquisition of abilities. The research results provide practical recommendations for educators and policymakers to improve instructional methods. Understanding teaching methods' impact on academic performance enhances educational outcomes, student success, resource allocation, curriculum development, policy formulation, and aids in identifying effective teaching methods. The academic performance of students is hindered by a lack of technology integration, inadequate adaptation to diverse learning styles, and inconsistent assessment methods to identify the specific teaching strategies that exhibit

a statistically significant correlation with improved academic performance among higher education students.

Hypothesis

Null hypothesis: Teaching methodology does not significantly influence students' academic performance.

Alternative hypothesis: Teaching methodology significantly influences students' academic performance.

LITERATURE REVIEW

According to Abrami et al. (2015), the choice of teaching approaches has a substantial influence on students' academic performance, level of involvement, ability to remember information and development of critical thinking abilities. They accommodate a wide range of learning preferences and have lasting effects on students' attitudes and abilities. Developing strategies to enhance teaching methods is essential, given the ever-changing educational environment and rapid technological progress. The examination also includes an analysis of the connections between teachers and students and how they influence academic achievement. Prosser and Trigwell (2014) examine the impact of research-oriented teaching practices on university students' academic performance. He found that teachers are knowledgeable about the methodology and that students' performance is influenced by their research-oriented teaching. This shift in teaching methods encourages critical thinking, innovation, problem-solving skills, and active engagement in learning.

Education involves the teacher and learners, who communicate knowledge, attitudes, values, interests, and skills through teaching methods. These methods have evolved over time, resulting in paradigm shifts in pedagogy. Kaushal (2017) examines teaching methods used in Ancient India and their significance in today's education system. It provides recommendations for incorporating these approaches into pre-service and in-service education programs, ensuring the desired behavior change remains unchanged. Traditional teaching methods emphasize structured information delivery, with teachers as the primary source. Contemporary methods prioritize student-centric approaches, fostering collaboration, critical thinking, and personalized learning experiences. Siegle et al. (2014) explored the methods including active learning, flipped classrooms, project-based learning, and technology integration, aiming to unlock students' potential in the ever-evolving education landscape. Transformation teaching methodologies can transform the learning environment by reshaping student involvement and knowledge assimilation, fostering personalized experiences and promoting active participation, thereby maximizing potential and fostering cooperation.

Teacher-Centered Methods

According to Bailey (2008), teacher-centered teaching in higher education enhances learning quality by utilizing diverse lecturers' skills, leading to increased student satisfaction and greater fulfillment for lecturers. Teaching approaches significantly impact students' academic performance, involvement, information retention, and critical thinking. Developing strategies to enhance methods is crucial in a rapidly changing educational environment. Analyzing teacher-student relationships also impacts academic achievement. Teacher-centered teaching is suggested to enhance the quality of higher education learning experiences. It acknowledges the diverse skills and expertise of students and lecturers, and the varied teaching methods available. Identifying strengths and weaknesses and focusing on teachers' qualities can improve the learning environment and student satisfaction. Activity-based learning doesn't effectively teach students real-life situations, and teachers should focus on delivering information effectively while minimizing time and effort expenditure. Consequently, the students' interest and understanding may be hampered (Bailey, 2008).

Student-Centered Method

Tondeur et al. (2015) explained the concept of discovery learning is highly encouraged in student-centered approaches, which are more effective in teaching. Wang and Zhang (2019) investigate the benefits of student-centered instructional methods in enhancing cognitive and practical skills and the role of deep learning in facilitating this growth. A survey of 976 students from 16 large Chinese universities found that student-centered teaching positively influenced deep learning adoption and self-perceived improvement. Deep learning also acted as a mediator, suggesting that even in large courses, student-centered strategies can enhance learning outcomes. Most teachers today apply the student-centered approach to promote interest, analytical research, critical thinking and enjoyment among students (Hennessy et al., 2005). Student-centered teaching in large-class settings enhances self-perceived abilities, encourages active engagement, critical thinking, and analytical skills, boosts confidence, and promotes deeper understanding and information utilization (Wang & Zhang, 2019). According to Noah Ekeyi (2013), in order to enhance students' performance, it is beneficial to employ an activity-based and student-centered strategy, such as the utilization of demonstrations. The utilisation of alternative methods, rather than relying solely on traditional approaches such as lectures, should be adopted.

Teacher-Student Interactive Method

The teacher-student interactive method in education fosters meaningful interactions, encourages dialogue, and adapts teaching methods to diverse learning styles, enhancing student engagement and motivation (Wang & Zhang, 2019). The pedagogical approach utilizes teacher-student interactive methods to promote student engagement, analytical investigation, critical thinking, and enjoyment, combining teacher-centered and student-centered methodologies (Hennessy et al., 2005). However, Interactive teaching methods involve active exchanges between educators and learners, promoting active engagement, critical thinking, and a supportive environment, fostering a sense of camaraderie and overall classroom success. Interactive learning techniques promote active participation, autonomous cognition, decision-making, creativity, intellectual curiosity, and analytical reasoning, bridging the gap between theory and practice and enhancing cognitive capacities and critical thinking skills for modern society (Siegle et al., 2014).

METHODOLOGY

This section provides an overview of the research strategy, including population and sample details, data collection methods, analysis methodologies, and data treatment. The study encompassed a cohort of 150 undergraduate and Master's students representing diverse academic disciplines and backgrounds. A quantitative research study used a structured survey questionnaire to analyze students' perspectives on teaching methods, academic performance, and demographics. Statistical analyses revealed connections between teaching approaches and academic success. Although this researcher will be collecting quantitative or measurable data, quantitative research methods will be employed as Twycross (2004) stressed that researchers will use measurable data to investigate the association between variables.

Statistical analyses were conducted utilizing SPSS software, focusing specifically on descriptive analysis, regression analysis, and factor analysis to explore and interpret the relationships between instructional methodologies and academic performance.

RESULTS AND DISCUSSIONS

Normality Test

Table 1 illustrates the skewness test of the data which indicates that the skewness test of this data indicates that the skewness falls between the ranges of -0.932 to 0.598, suggesting that the skewness of the data falls into an acceptable range. The kurtosis value of this data falls within the allowed range of -1.123 to 0.394. Therefore, the gathered data will be evaluated as normal and thereafter subjected to additional reliability testing.

Table 1. Descriptive statistics for variables.

Descriptive Statistics	N	Mean	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
PTM1	150	2.49	.598	.198	-.771	.394
PTM2	150	2.59	.402	.198	-1.123	.394
PTM3	150	2.49	.598	.198	-.771	.394
PTM4	150	2.44	.535	.198	-.805	.394
PTM5	150	2.41	.449	.198	-1.039	.394
DPA1	150	3.33	-.462	.198	-.874	.394
DPA2	150	3.98	-.932	.198	.868	.394
DPA3	150	3.03	-.322	.198	-.634	.394
DPA4	150	3.33	-.462	.198	-.874	.394
DPA5	150	3.98	-.932	.198	.868	.394
DPA6	150	3.98	-.932	.198	.868	.394
APS1	150	3.03	-.322	.198	-.634	.394
APS2	150	3.19	-.305	.198	-.798	.394
APS3	150	3.30	-.328	.198	-.694	.394
APS4	150	3.34	-.439	.198	-.689	.394
APS5	150	3.15	-.299	.198	-.820	.394

PTM stands for perception about teaching methodologies, DPA different pedagogical approaches and APS academic performance of students.

Reliability Test

Based on the data presented in Table 2, all the Cronbach's Alpha values for this research fell within the reliable range of 0.707 to 0.808. This demonstrates that the survey instrument or questionnaire exhibits exceptional reliability in terms of internal consistency (Tavakol et al., 2011).

Table 2. Cronbach Alpha.

Item-Total Statistics	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PTM1	48.07	70.914	.375	.743
PTM2	47.97	71.127	.338	.747
PTM3	48.07	70.914	.375	.743
PTM4	48.13	75.185	.189	.760
PTM5	48.16	75.813	.190	.759
DPA1	47.24	88.694	-.377	.808
DPA2	46.59	74.150	.366	.745
DPA3	47.53	67.553	.636	.720
DPA4	47.24	88.694	-.377	.808
DPA5	46.59	74.150	.366	.745
DPA6	46.59	74.150	.366	.745
APS1	47.23	64.727	.740	.708
APS2	47.37	66.477	.714	.714
APS3	47.27	67.190	.652	.718
APS4	47.23	64.727	.740	.708
APS5	47.23	64.727	.740	.708

Regression

According to Zygmont and Smith (2014), regression analysis is a statistical technique employed in research to comprehend and measure the associations between variables, enabling predictions and assessing the impacts of other elements. Initially, in order to assess the model using a modified R-square, it is considered a satisfactory fit if the coefficient R-square is at least 60%. To examine the relationship between variables using F-statistics, the value must fall between the ranges of 0.01 to 0.05. According to Granger and Newbold

(1974), the Durbin-Watson test value must be between the ranges of 1.5 to 2.5 in order to be recognized as acceptable.

Table 3. Regression test.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.560a	0.314	0.304	0.84497	1.965

Predictors: (Constant), DPA_avg, PTM_Avg; Dependent Variable: APS_avg.

As showed in Table 3, the model utilizing DPA_avg and PTM_Avg as predictors accounts for approximately 31.4% of the variability observed in APS_avg.The variables DPA_avg and PTM_Avg have a moderate association (0.560) with the variable APS_avg. The standard error of the estimate is 0.84497, indicating that, on average, the projected values may differ from the actual values by this amount. Examine the coefficients of DPA_avg and PTM_Avg to comprehend their respective influences on APS_avg. Greater coefficients signify a more pronounced impact. Analyze the p-values corresponding to each coefficient to ascertain their statistical significance. The R-squared represents the proportion of variance in the dependent variable predicted by the independent variables, with 0.314 indicating 31.4%.

Table 4. ANOVA.

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	47.964	2	23.982	33.589	.000b
Residual	104.954	147	.714		
Total	152.918	149			

Dependent variable: APS_avg; Predictors: (Constant), DPA_avg, PTM_Avg.

The ANOVA test presents the findings for the regression model (Model 1) in Table 4 where APS_avg is the dependent variable and DPA_avg and PTM_Avg are the predictors. The regression model exhibits a Sum of Squares (SS) value of 47.964, accompanied by an F-statistic of 33.589, which signifies a substantial level of fit. The residuals exhibit a Sum of Squares value of 104.954 and a Mean Square value of 0.714, which suggests the presence of unexplained variance. The dependent variable has a total variability of 152.918, with a Sig. =.000b, showing a statistically significant impact of the predictors. The p-value, being less than 0.05, indicates a statistically significant link between the independent variables and the dependent variable APS-Avg.

Table 5. Coefficients.

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	-.839	.511		-1.641	.103	-1.849	.171
PTM_Avg	.517	.072	.569	7.184	.000	.375	.660
DPA_avg	.765	.109	.557	7.033	.000	.550	.980

Dependent variable: APS_avg.

Table 5 highlights the dependent variable (APS_avg) is expected to increase by 0.517 units for every one-unit increase in PTM_Avg and 0.765 units for every one-unit increase in DPA_avg, when the independent variables are zero. The PTM_Avg and DPA_avg coefficients show a significant relationship with APS_avg, indicating a statistically significant impact on academic performance. Both PTM_Avg and DPA_avg significantly positively impact APS_avg, with PTM_Avg having a slightly stronger standardized coefficient (Beta) on a standardized scale.

Factor Analysis

According to Stewart (1981), factor analysis is utilized to determine correlations among related variables in order to develop theories and evaluate hypotheses relating to these measurements. It reduces

dimensionality, enabling researchers to concentrate on influential factors, simplifying modeling, and enabling more precise interpretations of complex datasets.

Table 6. Test of data adequacy.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.826
Bartlett's Test of Sphericity	Approx. Chi-Square	1103.954
	Df	120
	Sig.	.000

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity are used to assess data suitability for factor analysis. A KMO value of 0.826 in Table 6 indicates good intercorrelation, while a p-value and chi-square value indicate significant correlations.

Table 7. Communalities.

Communalities	Initial	Extraction
PTM1	1.000	.813
PTM2	1.000	.546
PTM3	1.000	.813
PTM4	1.000	.626
PTM5	1.000	.660
DPA1	1.000	.754
DPA2	1.000	.997
DPA3	1.000	.783
DPA4	1.000	.754
DPA5	1.000	.997
DPA6	1.000	.997
APS1	1.000	.783
APS2	1.000	.800
APS3	1.000	.748
APS4	1.000	.583
APS5	1.000	.701

Extraction Method: Principal Component Analysis.

The communalities Table 7 in Principal Component Analysis (PCA) quantifies the amount of variance in each variable that is accounted for by the extracted factors or components. Greater extraction numbers indicate a higher proportion of variance, whilst lower values imply a lesser amount of explanation. For example, PTM1, DPA1, DPA3, APS1, APS2, APS3, APS5, all exhibit extraction values ranging from .700 to .800, which signifies a variance of 70% to 80%. The extraction values for PTM2, PTM4, PTM5, DPA4, APS4, and DPA2, DPA5, DP6 are approximately 0.997, suggesting that the extracted components represent almost all of the variance.

As Table 8 reveals The Principal Component Analysis (PCA) examined the variance explained by the perception of teaching methodology (PTM) and different pedagogical approaches (DPA) on the dependent variable academic performance of students (APS). The analysis identified three components, accounting for 77.223% of the variance, which might represent underlying factors influencing APS. The findings provide insight into the combined impact of PTM and DPA on APS.

Table 8. Total variance explained.

Components	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.158	38.485	38.485	6.158	38.485	38.485	4.991	31.14	31.194
2	4.637	28.984	67.469	4.637	28.984	67.469	4.412	27.572	58.766
3	1.561	9.755	77.223	1.561	9.755	77.223	2.953	18.457	77.223
4	.817	5.105	82.328						
5	.742	4.638	86.966						
6	.561	3.504	90.470						
7	.392	2.448	92.918						
8	.372	2.327	95.244						
9	.321	2.004	97.248						
10	.246	1.540	98.788						
11	.194	1.212	100.000						
12	1.286 E-016	8.035E-016	100.000						
13	5.158 E-017	3.224E-016	100.000						
14	-2.214 E-016	-1.384E-015	100.000						
15	-2.633 E-016	-1.645E-015	100.000						
16	-3.608 E-016	-2.255E-015	100.000						

Extraction method: Principal component analysis.

Table 9. Rotated component matrix.

Rotated Component Matrix	Component			
	1	2	3	4
APS2	.882	.152	.042	.018
APS3	.859	.044	.065	-.147
APS5	.845	.180	.005	.103
APS4	.802	.068	-.041	.067
APS1	.778	.253	.033	-.119
DPA6	.502	-.442	-.016	.179
PTM5	.044	.833	-.016	.135
PTM3	.152	.833	.143	.128
DPA5	-.158	-.823	.078	.019
PTM4	.068	.820	.033	-.131
PTM2	.223	.706	.268	-.045
DPA4	-.017	.007	.827	-.108
DPA2	.027	.070	.792	.085
DPA3	-.061	.160	.648	-.378
DPA1	.082	.010	.616	.237
PTM1	-.030	.056	.033	.894

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.a
a. Rotation converged in 4 iterations.

Table 9 displays the component matrix obtained from Principal Component Analysis (PCA) and Varimax rotation. It explains the strength and direction of the relationship between variables and identified components. Higher values indicate stronger associations, while values closer to 1 or -1 indicate weaker associations. Variables with high absolute values in a component are considered stronger. The components' interpretation involves considering the variables with the highest loadings, as they likely represent similar underlying concepts or factors. The PTM1 data indicates a high loading value on Component 4, approximately .894.

CONCLUSIONS AND RECOMMENDATIONS

The study surveyed 150 undergraduate and Master's students across various academic disciplines to evaluate their perceptions of instructional methodologies, academic performance, and demographic information using quantitative research methods. This study explored the complex correlation between teachers' methodology, pedagogical approaches, and student academic achievement. A comprehensive examination of several teaching techniques and teacher methodologies yielded valuable findings. The findings demonstrated the crucial importance of employing innovative and learner-focused teaching methods to foster enhanced academic performance. As Prior study by Tynjala (1998) suggests that a student-centered learning environment is more effective in producing higher-level learning results compared to a conventional instructor-led setting. The implementation of diverse teaching methodologies, incorporating active engagement and captivating techniques, had a substantial and positive impact on students' academic performance, highlighting the importance of adaptable instructional strategies. Nevertheless, although conventional teacher-centered techniques exhibited some effect, their overall influence was quite limited. These figures emphasize the need for an adaptable educational environment that can incorporate evolving teaching methods to improve student learning results.

The study's limitations, such as the limited number of participants and the use of self-reported data, provide opportunities for further exploration and demand continuous research on tailored pedagogical methods to better cater to the diverse needs of learners. This research makes substantial contributions to the discourse on effective teaching methodologies and their influence on student academic performance, calling for a learner-focused and adaptable approach in modern educational settings. It matters for educators and institutions to give priority to student-centered approaches, which involve combining new teaching methods such as experiential learning and technology integration. Adapting instructional methods to cater to a wide range of learning requirements is essential. Systematic assessment and enhancement of teaching approaches is necessary. Collaborative learning spaces, which promote student participation, are advantageous as well. It is imperative to conduct additional research on the enduring impacts of instructional approaches. Policymakers ought to integrate research findings into educational policies and curriculum development in order to promote the widespread use of new teaching approaches. The purpose of these recommendations is to improve student academic achievement and foster engaging learning environments.

Study Limitations and Future Research

The study's limitations include a specific sample size, demographics, and reliance on self-reported responses, which may limit its generalizability to broader student populations or educational institutions. Subsequent research endeavors might incorporate broader and more diverse populations, utilize unbiased measures of performance, and employ longitudinal study designs. Future research should aim to obtain larger samples to ensure more accurate, consistent, and precise findings. Moreover, it is important to augment the sample size in order to incorporate a diverse range of academic disciplines. Longitudinal studies possess the capacity to observe and evaluate the enduring effects of different instructional methodologies on students' academic achievement over a prolonged duration. Comparative research can provide a comprehensive understanding of the effectiveness of different educational levels, subjects, and

demographics. To evaluate the relationship between teaching methods and academic achievement, one might analyze both objective measures of academic performance and subjective perceptions.

Specialized teacher training programs can also influence the efficacy of innovative teaching approaches. The incorporation of technology can improve students' academic achievement. Cultural and contextual considerations can inform customized strategies. Metrics have the ability to measure and assess the level of student involvement and the interactions between teachers and students. The research should prioritize certain topics and assess the influence of policies.

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