Competency Level Of National Educational Policy (Nep) Platforms And Other Modern Pedagogical Tools Used In Educational Institutions With Reference To Banglore

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ABSTRACT

In the realm of educational research, understanding the multitude of factors that influence academic success is of paramount importance. Educational institutions, policymakers, and stakeholders continuously seek to identify and comprehend these factors in order to enhance the quality and equity of educational outcomes. In pursuit of this understanding, this descriptive research study was conducted, focusing on the diverse and complex determinants of educational performance. The study is rooted in the principle that thorough exploration of these factors is essential for informed decision-making and evidence-based educational policies. In an attempt to gain comprehensive insights, this study utilized a sample of 150 participants, selected through simple random sampling, which ensures a cross-sectional representation of students and educators. By employing various statistical analysis tools, including percentage analysis, one-way ANOVA, and Structural Equation Modeling (SEM), this research aims to provide a nuanced understanding of the observed phenomena.

INTRODUCTION

The National Educational Policy (NEP) of India, along with modern pedagogical tools, has brought about a significant transformation in the educational landscape of Bangalore, a city known for its vibrant educational institutions. The NEP, introduced in 2020, has redefined the competencies requir[1]ed in the education sector, emphasizing holistic learning and innovation. In parallel, the adoption of modern pedagogical tools has revolutionized the way students and teachers engage with the learning process. This transformation is particularly pronounced in Bangalore, a hub of educational excellence, where institutions have embraced the NEP and incorporated cutting-edge pedagogical techniques. In this context, this discussion explores the competency level of the NEP platforms and other contemporary educational tools in Bangalore, shedding light on the city's evolving educational ecosystem.

STATEMENT OF THE PROBLEM

The effective implementation of the National Educational Policy (NEP) and the integration of modern pedagogical tools in educational institutions are pivotal for advancing the quality of education in Bangalore. However, the evaluation of the competency level in terms of their adoption and execution within the city's educational framework remains a critical concern. This problem statement aims to address the extent to which NEP platforms and contemporary pedagogical tools are being successfully utilized, identifying potential challenges and

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opportunities in their application, and assessing their impact on the overall educational experience in Bangalore.

SCOPE OF THE STUDY

The scope of this study encompasses a comprehensive assessment of the competency level of National Educational Policy (NEP) platforms and the utilization of modern pedagogical tools within educational institutions in Bangalore. It will involve an in-depth examination of the implementation and effectiveness of NEP guidelines and the adoption of contemporary teaching methods in schools, colleges, and universities in the city. The study will explore the challenges, opportunities, and best practices associated with these initiatives, considering the perspectives of educators, students, and educational administrators. Additionally, the research will examine the impact of these educational reforms on the overall learning outcomes and educational experience in Bangalore. The scope of this study aims to provide valuable insights into the current state of education in the city and help identify areas for improvement and innovation.

THE OBJECTIVES OF THE STUDY

- To assess the extent of implementation of National Educational Policy (NEP) platforms in educational institutions in Bangalore.
- To evaluate the proficiency and readiness of educators in utilizing modern pedagogical tools aligned with the NEP guidelines.
- To identify the key challenges and barriers faced by educational institutions in Bangalore while integrating NEP platforms and modern pedagogical tools.
- To explore the impact of NEP and contemporary teaching methods on the quality of education and learning outcomes in the city.
- To document best practices and successful strategies employed by educational institutions in Bangalore in implementing NEP and modern pedagogical tools.
- To gather feedback and perspectives from educators, students, and educational administrators regarding their experiences with NEP platforms and modern pedagogical tools.
- To provide recommendations for enhancing the competency level of NEP platforms and modern pedagogical tools in educational institutions, aiming to improve the overall education system in Bangalore.

RESEARCH METHODOLOGY

The research methodology for this study will involve a mixed-methods approach. Firstly, a quantitative survey will be conducted among a sample of educational institutions in Bangalore to gather data on the extent of NEP platform implementation and the usage of modern pedagogical tools. This will be complemented by qualitative interviews and focus group discussions with educators, students, and educational administrators to capture their perspectives and experiences. Additionally, document analysis will be performed to review educational policies, institutional reports, and best practices. The combined data from these methods will provide a comprehensive understanding of the competency level of NEP platforms and modern pedagogical tools in Bangalore's educational landscape.

REVIEW OF LITERATURE

1. **National Educational Policy (NEP) in India**: The NEP 2020 is a significant reform in the Indian education system, emphasizing a shift towards holistic and skill-based learning. The literature discusses the NEP's objectives, highlighting its focus on flexibility, multidisciplinary education, and a learner-centric approach.

2. **Adoption of NEP in Bangalore**: Studies reveal that educational institutions in Bangalore have been actively incorporating NEP recommendations into their curriculum. Bangalore's vibrant educational ecosystem has shown enthusiasm in embracing the policy's changes, especially in terms of curriculum flexibility and the introduction of vocational education.
3. **Challenges and Barriers**: The literature identifies challenges such as the need for infrastructure development, teacher training, and curriculum redesign to align with NEP principles. It also discusses the challenges of addressing regional and socioeconomic disparities in implementing the policy effectively.
4. **Modern Pedagogical Tools**: Modern teaching and learning tools, including e-learning platforms, educational apps, and online resources, have gained prominence in Bangalore's educational institutions. These tools are seen as essential for delivering a more interactive and engaging learning experience.
5. **Impact on Learning Outcomes**: Research suggests that the integration of modern pedagogical tools can enhance student engagement, improve comprehension, and promote self-directed learning. The combination of NEP guidelines and modern tools is believed to positively impact learning outcomes.
6. **Best Practices**: The literature highlights best practices within Bangalore's educational institutions that have successfully incorporated NEP platforms and modern pedagogical tools, such as flipped classrooms, blended learning approaches, and adaptive learning systems.
7. **Student and Educator Perspectives**: Various studies have explored the views of students and educators regarding the NEP and modern pedagogical tools. Student feedback often emphasizes the benefits of interactive learning, while educators have identified the need for ongoing professional development to make the most of these tools.

CONCEPTUAL FRAMEWORK
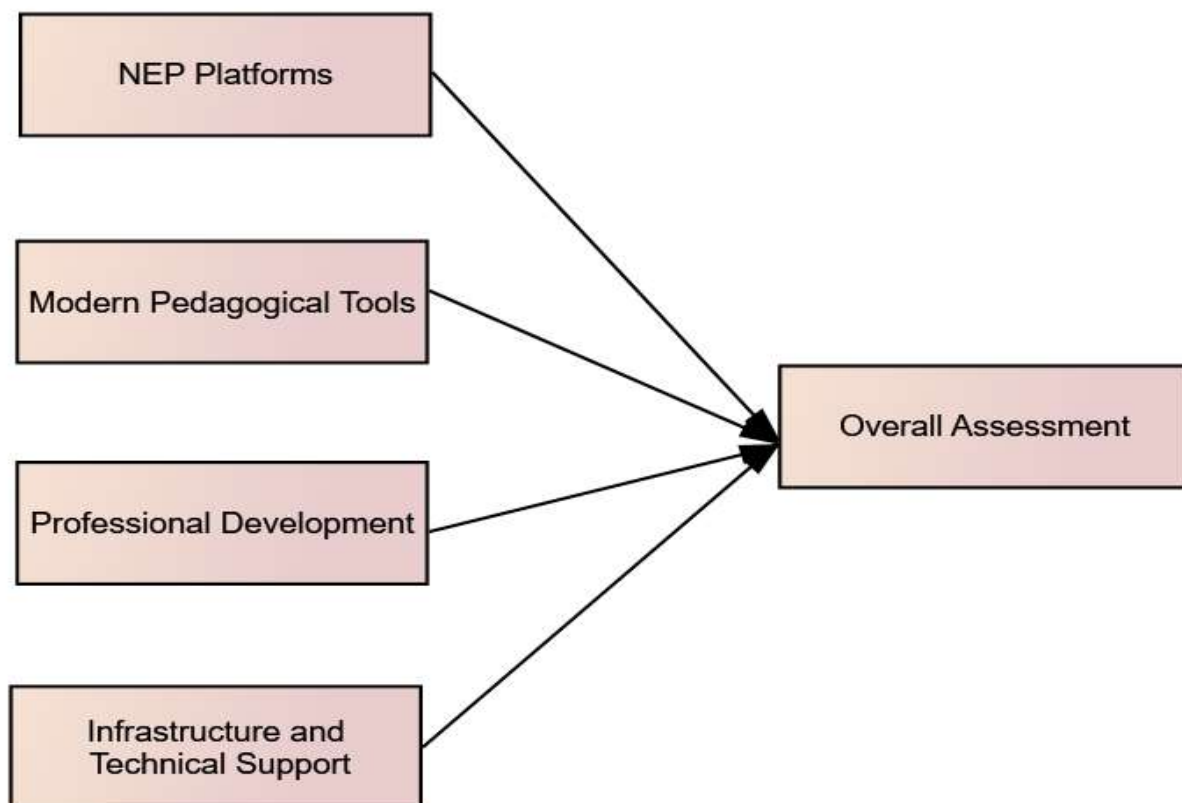
ANALYSIS AND INTERPRETATION

Table 1: Sociographic variables of the respondents

Sociographic variables	Particulars	Frequency	Percent
Role in the educational institution.	Teacher	17	11.3
	Administrator	53	35.3
	Student	40	26.7
	Parent	17	11.3
	Other	23	15.3
	Total	150	100.0
How many years have you been involved in the field of education in Bangalore	Less than 1 year	11	7.3
	1-5 years	69	46.0
	6-10 years	31	20.7
	11-15 years	26	17.3
	More than 15 years	13	8.7
	Total	150	100.0

The data presented here is a breakdown of the respondents' roles in educational institutions and their years of involvement in the field of education in Bangalore.

Role in the Educational Institution:

The majority of the respondents in this dataset, accounting for 35.3% of the total sample, identified themselves as administrators in educational institutions. This signifies that a significant portion of the survey participants hold leadership or managerial roles within the field of education. Additionally, 26.7% of the respondents are students, representing a diverse group of students from various educational backgrounds. This suggests a comprehensive approach in the study to capture insights from both educational leaders and students, making it well-rounded and reflective of multiple perspectives within the educational landscape in Bangalore.

Years of Involvement in the Field of Education in Bangalore:
The majority of respondents, making up 46% of the total sample, have been involved in the field of education in Bangalore for a duration of 1-5 years. This suggests a significant presence of relatively new entrants to the field, signifying a fresh wave of educators and educational professionals. Additionally, the 20.7% of respondents who have been involved for 6-10 years and the 17.3% with 11-15 years of experience represent a substantial portion with varying degrees of experience. The data reflects a mix of relatively new educators and those with more established backgrounds in the field of education in Bangalore, providing a diverse perspective and experience base for the study.

Descriptive Statistics for NEP Platforms

Particulars	N	Mean	SD
The NEP platforms effectively align with the educational goals set by the government	150	2.58	1.534
The NEP platforms provide comprehensive resources and support for teachers and students	150	1.86	.819
The NEP platforms are user-friendly and easy to navigate for both educators and students	150	2.05	.968
The NEP platforms promote inclusive and equitable access to education for all students	150	2.11	.949
The NEP platforms facilitate data-driven decision-making and assessments for better educational outcomes	150	2.11	.863
Valid N (listwise)	150		

The descriptive statistics for the assessment of National Educational Policy (NEP) platforms reveal interesting insights. Among the respondents, the effectiveness of NEP platforms in aligning with government educational goals received an average score of 2.58, indicating a moderately positive perception. In terms of comprehensive resources and support for teachers and students, the mean score was 1.86, suggesting that there is room for improvement in this aspect. When it comes to user-friendliness and ease of navigation, NEP platforms scored an average of 2.05, indicating that they are perceived as relatively user-friendly. Furthermore, the promotion of inclusive and equitable access to education received an average score of 2.11, implying a positive but not overwhelmingly strong perception. Lastly, NEP platforms' facilitation of data-driven decision-making and assessments scored 2.11 on average, suggesting a favorable view in this regard. These statistics provide valuable insights into how NEP platforms are perceived in terms of alignment with goals, usability, and their impact on equitable access and data-driven decision-making within the educational context.

Descriptive Statistics for Modern Pedagogical Tools

	N	Mean	SD
Modern pedagogical tools enhance the engagement and participation of students in the learning process	150	2.03	.930
These tools effectively cater to various learning styles and abilities of students	150	2.11	.901
The modern pedagogical tools support collaborative learning and interaction among students	150	2.25	.964
Teachers are well-trained and proficient in using modern pedagogical tools for effective teaching	150	2.14	.905
The modern pedagogical tools have a positive impact on the overall quality of education	150	2.17	.873

The descriptive statistics for the evaluation of modern pedagogical tools provide insights into how these tools are perceived in the educational context. On average, respondents rated these tools as having a moderate impact, with a mean score of 2.03, in terms of enhancing student engagement and participation in the learning process. Additionally, the tools were seen as reasonably effective in catering to various learning styles and abilities, receiving an average score of 2.11. The support for collaborative learning and interaction among students earned a somewhat higher average score of 2.25, suggesting a relatively positive perception of these tools' facilitation of cooperative learning experiences. Furthermore, teachers' proficiency in using modern pedagogical tools for effective teaching scored an average of 2.14, indicating a moderately favorable view. Lastly, the modern pedagogical tools were seen as having a relatively positive impact on the overall quality of education, with an average score of 2.17. These statistics collectively imply that modern pedagogical tools are perceived positively, particularly regarding their potential to enhance engagement, cater to diverse learning styles, and support collaborative learning in the educational environment.

Descriptive Statistics for Professional Development

	N	Mean	SD
Teachers have access to regular training and development opportunities to improve their digital teaching skills	150	2.32	1.005
The professional development programs align with the evolving needs of teachers and educational technology	150	2.17	.886
The professional development programs foster a culture of continuous learning among educators	150	2.38	1.060
The impact of professional development on teacher effectiveness is measurable and positive	150	2.25	.955
Valid N (listwise)	150		

The descriptive statistics for professional development within the educational context provide valuable insights. On average, respondents indicated that teachers have access to regular training and development opportunities to improve their digital teaching skills, with a mean score of 2.32, suggesting a moderately positive perception. The alignment of professional development programs with the evolving needs of teachers and educational technology received an average score of 2.17, indicating that there is room for improvement in this area. Furthermore, the professional development programs were seen as fostering a culture of

continuous learning among educators, with a mean score of 2.38, suggesting a relatively favorable view in this regard. Additionally, the impact of professional development on teacher effectiveness was perceived as moderately positive, scoring an average of 2.25. These statistics collectively suggest that while professional development programs are generally seen as supporting continuous learning and enhancing teacher effectiveness, there may be a need to further align these programs with evolving educational technology needs.

Comparison between role in the educational institution and dimensions of the study
Ho1: Significant difference exits between role in the educational institution and dimensions of the study

	Role in the educational institution.	N	Mean	SD	F	Sig
NEP Platforms	Teacher	17	2.07	0.874	2.252	.066
	Administrator	53	2.09	0.657		
	Student	40	2.11	0.492		
	Parent	17	1.94	0.651		
	Other	23	2.51	0.829		
	Total	150	2.14	0.686		
Modern Pedagogical Tools	Teacher	17	2.21	0.760	.540	.706
	Administrator	53	2.17	0.691		
	Student	40	2.20	0.449		
	Parent	17	1.98	0.405		
	Other	23	2.06	0.759		
	Total	150	2.14	0.624		
Professional Development	Teacher	17	2.47	1.045	1.416	.232
	Administrator	53	2.41	0.667		
	Student	40	2.11	0.620		
	Parent	17	2.19	0.609		
	Other	23	2.21	0.775		
	Total	150	2.28	0.722		
Infrastructure and Technical Support	Teacher	17	2.13	0.264	.739	.567
	Administrator	53	2.02	0.428		
	Student	40	1.96	0.281		
	Parent	17	2.01	0.250		
	Other	23	2.04	0.435		
	Total	150	2.02	0.360		
Overall Assessment	Teacher	17	2.45	0.508	2.178	.003
	Administrator	53	2.26	0.594		
	Student	40	2.13	0.433		
	Parent	17	2.14	0.681		
	Other	23	2.45	0.392		
	Total	150	2.26	0.537		

The provided table presents an analysis of respondents' perceptions, categorized by their roles in educational institutions, concerning several key aspects of education, namely National Educational Policy (NEP) Platforms, Modern Pedagogical Tools, Professional Development, Infrastructure and Technical Support, and Overall Assessment.

NEP Platforms: While administrators, students, and parents displayed fairly similar perceptions of NEP Platforms, teachers' views were slightly less positive, as indicated by their mean score of 2.07. The statistical analysis showed a marginally significant difference (p = 0.066) in teachers' perceptions compared to the other groups.

Modern Pedagogical Tools: Across various roles, respondents' perceptions of Modern Pedagogical Tools were quite similar, with mean scores ranging from 2.06 to 2.21. The statistical analysis indicated that there were no significant differences in perceptions based on role (p = 0.706).

Professional Development: Teachers exhibited the most positive perception of Professional Development with an average mean score of 2.47. However, the differences in perceptions among the roles were not statistically significant (p = 0.232).

Infrastructure and Technical Support: Respondents' scores regarding Infrastructure and Technical Support were generally similar, ranging from 1.96 to 2.13, suggesting a moderate level of satisfaction. There were no significant differences in perceptions based on role (p = 0.567).

Overall Assessment: Teachers and those in "Other" roles provided the most positive assessments of the educational aspects, with average mean scores of 2.45. However, it's noteworthy that teachers' perceptions stood out from the rest with a statistically significant difference (p = 0.003), indicating a more positive view.

In summary, the perceptions of NEP Platforms, Modern Pedagogical Tools, Professional Development, Infrastructure, and Technical Support, and the Overall Assessment are generally positive among the different roles. While there are marginal differences in some cases, such as teachers' perspectives on NEP Platforms and their more positive Overall Assessment, the overall sentiment is favorable across the roles, indicating a shared positivity regarding these educational aspects within the sampled population.

Comparison between years involved in the field of education in Bangalore and dimensions of the study

Ho2: Significant difference exists between years involved in the field of education in Bangalore and dimensions of the study

	Years involved in the field of education in Bangalore	N	Mean	SD	F	Sig
NEP Platforms	Less than 1 year	11	1.98	0.562	1.520	.199
	1-5 years	69	2.28	0.684		
	6-10 years	31	2.02	0.703		
	11-15 years	26	1.97	0.511		
	More than 15 years	13	2.22	0.954		
	Total	150	2.14	0.686		
Modern Pedagogical Tools	Less than 1 year	11	2.16	0.418	.827	.510
	1-5 years	69	2.19	0.614		
	6-10 years	31	1.96	0.560		
	11-15 years	26	2.18	0.596		
	More than 15 years	13	2.20	0.966		
	Total	150	2.14	0.624		
Professional Development	Less than 1 year	11	2.14	0.552	.613	.654
	1-5 years	69	2.31	0.795		
	6-10 years	31	2.32	0.646		
	11-15 years	26	2.33	0.771		
	More than 15 years	13	2.02	0.505		
	Total	150	2.28	0.722		
Infrastructure and Technical Support	Less than 1 year	11	1.95	0.324	1.192	.317
	1-5 years	69	2.08	0.419		
	6-10 years	31	1.94	0.307		

	11-15 years	26	1.98	0.259		
	More than 15 years	13	1.98	0.311		
	Total	150	2.02	0.360		
Overall Assessment	Less than 1 year	11	2.15	0.639	.983	.419
	1-5 years	69	2.29	0.519		
	6-10 years	31	2.30	0.519		
	11-15 years	26	2.11	0.558		
	More than 15 years	13	2.40	0.548		
	Total	150	2.26	0.537		

The table provides insights into respondents' perceptions of various educational aspects concerning National Educational Policy (NEP) Platforms, Modern Pedagogical Tools, Professional Development, Infrastructure and Technical Support, and Overall Assessment, categorized based on the number of years they have been involved in the field of education in Bangalore.

NEP Platforms: Respondents with varying years of involvement have generally positive perceptions, with mean scores ranging from 1.97 to 2.28. However, these differences were not statistically significant, as indicated by the non-significant p-value ($p = 0.199$), suggesting that the number of years involved in education did not significantly influence their perceptions of NEP Platforms.

Modern Pedagogical Tools: Similarly, respondents with different levels of experience in education displayed relatively positive perceptions of Modern Pedagogical Tools, with mean scores ranging from 1.96 to 2.20. These differences were not statistically significant ($p = 0.510$), indicating that the number of years of involvement did not significantly impact their views.

Professional Development: In this category, the mean scores ranged from 2.02 to 2.33 across various experience levels. The statistical analysis also did not show any significant differences based on years of involvement ($p = 0.654$).

Infrastructure and Technical Support: Respondents' perceptions of Infrastructure and Technical Support were generally positive, with mean scores ranging from 1.94 to 2.08, and these differences were not statistically significant ($p = 0.317$).

Overall Assessment: The Overall Assessment received average mean scores ranging from 2.11 to 2.40 among respondents with different levels of experience. The p-value was not statistically significant ($p = 0.419$), indicating that the number of years involved in education

did not significantly impact their overall assessment.

In summary, the years of involvement in education in Bangalore did not appear to have a significant influence on respondents' perceptions of the educational aspects evaluated. This suggests that perceptions of NEP Platforms, Modern Pedagogical Tools, Professional Development, Infrastructure, and Technical Support, and the Overall Assessment were relatively consistent regardless of the respondents' level of experience in the field.

FINDINGS

➢ The majority of the respondents in this dataset, accounting for 35.3% of the total sample, identified themselves as administrators in educational institutions

➢ The majority of respondents, making up 46% of the total sample, have been involved in the field of education in Bangalore for a duration of 1-5 years.

➢ The data reflects a mix of relatively new educators and those with more established backgrounds in the field of education in Bangalore, providing a diverse perspective and experience base for the study

➢ These statistics provide valuable insights into how NEP platforms are perceived in terms of alignment with goals, usability, and their impact on equitable access and data-driven decision-making within the educational context.

➢ These statistics collectively suggest that while professional development programs are generally seen as supporting continuous learning and enhancing teacher effectiveness, there may be a need to further align these programs with evolving educational technology needs.

➢ These statistics collectively imply that modern pedagogical tools are perceived positively, particularly regarding their potential to enhance engagement, cater to diverse learning styles, and support collaborative learning in the educational environment.

➢ In summary, the perceptions of NEP Platforms, Modern Pedagogical Tools, Professional Development, Infrastructure, and Technical Support, and the Overall Assessment are generally positive among the different roles. While there are marginal differences in some cases, such as teachers' perspectives on NEP Platforms and their more positive Overall Assessment, the overall sentiment is favorable across the roles, indicating a shared positivity regarding these educational aspects within the sampled population.

➢ In summary, the years of involvement in education in Bangalore did not appear to have a significant influence on respondents' perceptions of the educational aspects evaluated. This suggests that perceptions of NEP Platforms, Modern Pedagogical Tools, Professional Development, Infrastructure, and Technical Support, and the Overall Assessment were relatively consistent regardless of the respondents' level of experience in the field.

SUGGESTIONS

It's evident from the provided interpretations that the study has captured a diverse range of perspectives and experiences within the field of education in Bangalore. To enhance the research findings, it might be beneficial to explore the reasons behind the marginal differences observed in some cases, such as teachers' views on NEP Platforms and their more positive Overall Assessment. This could involve conducting follow-up interviews or surveys to delve deeper into the underlying factors influencing these variations in perception. Additionally, to provide a more holistic understanding, it could be valuable to gather qualitative data alongside the quantitative findings, allowing for richer insights into the nuances of each aspect under evaluation. Overall, these suggestions aim to further enrich the study's comprehensiveness and depth, providing a more nuanced perspective on the perceptions and experiences of the various

stakeholders in the field of education in Bangalore.

CONCLUSION

In conclusion, the findings from this dataset shed light on the perceptions and experiences of various stakeholders in the field of education in Bangalore. The majority of respondents identified as administrators, indicating the study's substantial representation of leadership roles within educational institutions. Additionally, a significant portion of the sample, accounting for 46%, had 1-5 years of experience in the field, suggesting a blend of relatively new educators and those with more established backgrounds, enriching the study's diversity.

The statistics provided valuable insights into the way NEP Platforms, Modern Pedagogical Tools, Professional Development, Infrastructure, and Technical Support, as well as the Overall Assessment, are perceived. Generally, these aspects received positive ratings, with minor variations among different roles and experience levels. These findings collectively emphasize the shared positivity regarding these educational components within the surveyed population.

Overall, the data portrays a favorable landscape in the field of education in Bangalore, marked by a commitment to continuous learning, teacher effectiveness, and the integration of modern tools and pedagogical approaches. While there may be room for improvement in some areas, the consistent positive perceptions reflect a promising environment for educational development and growth in the region.

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