

## THE ROLE OF EDUCATIONAL LEADERSHIP IN IMPROVING INSTITUTIONAL EFFECTIVENESS AND STUDENT ACHIEVEMENT

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### Abstract

The paper will focus on how educational leadership can enhance the effectiveness of institutions and student outcomes. The research design adopted was descriptive and correlational whereby teachers, administrators, and students were surveyed using a structured and Likert-scale questionnaire and supplemented by the institutional performance records. The responses were analyzed using MS Excel (200 responses). The perceptions of leadership practices, institutional effectiveness and student achievement were evaluated using descriptive statistics, such as mean and percentage. Pearson correlation and regression tests were used to test the correlation between variables. The results indicated moderate to high mean scores of educational leadership ( $M = 3.47$ ), institutional effectiveness ( $M = 3.44$ ) and student achievement ( $M = 3.46$ ). Leadership and institutional effectiveness ( $r = 0.81$ ) and leadership and student achievement ( $r = 0.76$ ) were correlated strongly with each other. The regression analysis showed that educational leadership is a strong predictor of institutional effectiveness as well as student achievement. The paper concludes that good leadership practices are important in improving the performance of organizations and student achievement. The results give useful information to educational leaders and policymakers in coming up with measures that will enhance institutional efficiency and academic achievements.

**Keywords:** Educational Leadership, Institutional Effectiveness, Student Achievement, Leadership Practices, Educational Performance

## 1. Introduction

In the current education systems, the issue of educational leadership has gained central focus because it is one of the key issues in influencing the performance of the institution and student achievement. Over the past few years, leadership has come out of its conventional administrative roles to dynamic and teaching roles that impact directly on the teaching and learning processes. Modern studies highlight that effective leadership contributes to professional learning settings and increases teacher cooperation, thus promoting an improvement in the performance of an institution (Hallinger and Kulophas, 2022). Here, leadership is not perceived as a top-down command but a distributed and interactive process whereby several stakeholders are involved in educational institutions.

Educational success is measured by institutional effectiveness and student achievement, the latter of which is heavily dependent on the practice of leadership. Institutional effectiveness can be defined as the capability of an educational organization to meet its objectives effectively and in the meantime ensuring high standards of teaching and administration. On the other hand, student achievement is a measure of academic performance, involvement, and overall growth of learners. It has been established that internal school factors, such as leadership practices, are important in influencing the quality of instruction and learning outcomes of students (Polatcan et al., 2023). This introduces the interdependence between leadership, institutional functioning and performance of students.

Some of the factors that normally mediate the relationship between leadership and student achievement are teacher motivation, instructional practices and organizational climate. Emotional and professional leadership practices that promote teacher performance can boost the performance of teachers, and this, in turn, impacts positively on student learning outcomes (Sun and Leithwood, 2015). Likewise, those leadership systems that integrate the work of principals and teachers have been discovered to have a beneficial effect on organizational processes and student performance (Sebastian et al., 2017). Such results imply that leadership happens via various channels, which have impact on institutional systems and classroom activities.

Though the role of leadership is increasingly being acknowledged, there is still a need to better comprehend the impact of various leadership models in enhancing educational performance. Other studies have been done on various leadership strategies including instructional, transformational and distributed leadership, and each of these new strategies contribute differently to improving schools. Based on a systematic review of leadership models, a range of leadership practices can potentially create a significant impact on the performance of an institution should they be implemented (Gumus et al., 2018). These models, however, are not effective in all circumstances and tend to be dependent on the situation such as organizational culture and resources available.

Effective leadership is also associated with teacher performance and increased performance of the students. Leadership strategies that have been shown to enhance teacher efficacy, student learning outcomes, include instructional support, professional development, and collaborative decision-making (Ghavifekr and Ramzy, 2020). Moreover, an interest in shared leadership models, where teachers and administrators have decentralized leadership roles, has arisen due to their ability to improve organizational performance and educational outcomes (Printy and Liu, 2021). These strategies focus on cooperation and collective responsibility, which are necessary to tackle the complicated issues of contemporary learning institutions.

The recent developments in educational research have also stipulated the necessity of putting leadership practices into context. The meta-analytical studies conducted on a large scale have shown that the correlation between instructional leadership and student achievement differs in various cultural and institutional contexts (Pietsch et al., 2025). This implies that leadership practices should be modified to fit educational settings, to have the best outcomes. Moreover, leadership is also relevant in enhancing inclusive education because it helps to provide all students with opportunities to access quality learning (Murphy, 2018).

The teacher-related influences contribute to the mediating role in the effects of the leadership on student achievement as well. It has been demonstrated that leadership practices affect the teacher self-efficacy and subsequently the teaching quality and student outcomes (Fackler and Malmberg, 2016). This highlights the role of leadership in establishing conducive conditions to boost teacher confidence and performance. Also, the contextual factors have a profound impact on leadership, and its performance cannot be disconnected with the environment it is working within (Clarke and O'Donoghue, 2017). This highlights the need to have context-sensitive leadership practices, which consider the uniqueness of various learning contexts.

In addition to the quantitative approaches, qualitative research has also contributed towards the body of knowledge on the topic of educational leadership by exploring the social and contextual perspectives. These methods put the significance of relationships, cooperation, and flexibility in leadership into focus (Smit, 2018). These perceptions provide practical pieces of information as to how leadership can be effectively used in many educational contexts.

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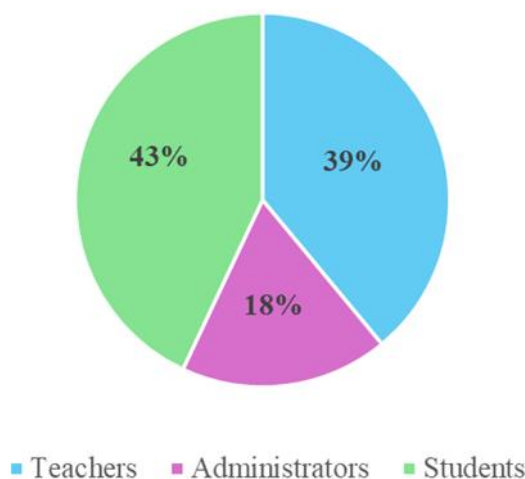
## 2. Methodology

### 2.1 Research Design

In this study, the research design will be descriptive and correlational research design to conduct a systematic inquiry of the relationship between educational leadership practices, institutional effectiveness and student achievement. The descriptive dimension enables one to gain an in-depth insight into current leadership behaviors and institutional circumstances whereas the correlational design enables one to determine the level and the direction of relationship between variables. This design is suitable because it will allow the researcher to study naturally occurring phenomena without manipulation and hence objectivity. It also facilitates the application of statistical devices to draw associations and predictive links between the variables of choice.

**2.2 Population and Sample**

The sample of the study includes teachers, school administrators, and students of the selected educational institutions that are one of the main stakeholders in the educational process. Figure 2 shows how the respondents are distributed in terms of their roles.



**Figure 1.** Distribution of Respondents by Role

These populations were selected since they have a direct impact and experience of leadership practices and institutional results. To ensure equal representation of every group, a representative sample was taken. The sample will consist of 100-200 respondents, which will be based on accessibility and cooperation of the institutions. This is believed to be sufficient in statistical analysis and serves to enhance the reliability and generalizability of the results to the contexts of similar education.

**2.3 Sampling Technique**

The research uses stratified random sampling methods as a way of having a fair and systematic representation of various respondent groups, the teachers, administrators and students. All the categories were considered a distinct stratum, and participants were randomly chosen in each group. This will reduce sampling bias and increase the accuracy of data acquired. Stratified sampling would be especially appropriate in this research since it is certain that the whole range of relevant views will be covered, which will enhance the validity of comparisons and associations made between variables within various groups of stakeholders.

**2.4 Data Collection Tools**

**2.4.1 Structured Questionnaire**

A Likert scale was used to develop a structured questionnaire (1 = Strongly Disagree to 5 = Strongly Agree) to collect primary data on the respondents. The questionnaire was well designed to capture the key areas of the educational leadership practices like decision-making, communication, motivation and leadership support. It also contained some elements to do

with institutional effectiveness like organizational effectiveness and quality of teaching and student achievement indicators like academic performance and engagement. The tool was simplified, made transparent and concise and easy to respond to, which ensured the collection of accurate and reliable information.

**2.4.2 Institutional Performance Records**

In addition to primary data, institutional performance records were used to collect secondary data, to support and validate the results. These included academic performance of the students, attendance and institutional performance summary. This kind of information provided a straightforward base in the establishment of student success and institutional effectiveness. The secondary data will increase the validity of the research as the responses received via the questionnaires can be cross verified, which will raise the overall validity and richness of the research results.

**2.5 Variables of the Study**

The research concentrates on the well-defined variables to come up with meaningful relationships. Educational leadership

practices which involve leadership behaviors, decision making styles, and communication strategies embraced by institutional leaders are the independent variable. Institutional effectiveness and student achievement are the dependent variables. Institutional effectiveness is an overall performance and efficiency of the institution, and student achievement also includes academic output measure and the level of engagement. Estimation of these variables helps in structuring the analysis and helps to define the extent to which the leadership practices have effects on the education outcomes.

**2.6 Data Analysis Techniques**

Data obtained was then systematically coded and Microsoft Excel entered to be analyzed. Descriptive statistics (mean and percentage) were applied to summarize the responses to find out the overall patterns of leadership practices and institutional performance. Pearson correlation was done to determine the quality and direction of correlations between educational leadership and the dependent variables. Besides, the predictive power of leadership practices institutional effectiveness and student achievement was also tested with the help of regression analysis. The results were also presented in visual forms as charts and graphs which were developed using excel in understandable format.

**2.7 Reliability and Validity**

Reliability and validity were taken into consideration to give the quality of the research instrument. The questionnaire was reviewed by subject experts to ensure the questionnaire contained content validity, and to ensure that the questionnaire was exhaustive enough to cover all the facets of the study. A pilot study was conducted among a small group of respondents, to ascertain the clarity, consistency and reliability of the instrument. Changes to be made were informed by feedback. These measures contributed to the increases in the accuracy and reliability of the data, as the study results were believable and scientifically reliable.

**3. Results and Analysis**

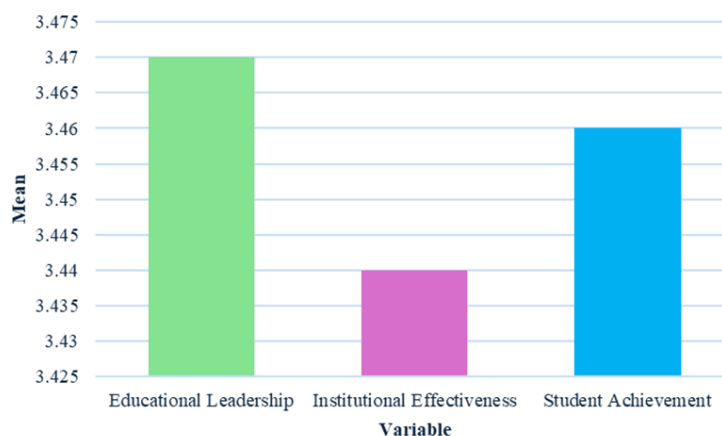
**3.1 Analysis of Educational Leadership Practices**

The descriptive statistics were used to calculate responses to questions of educational leadership practices. Table 1 shows the descriptive statistics of the study variables.

**Table 1.** Descriptive Statistics of Study Variables

Variable	Mean (M)	Standard Deviation (SD)
Educational Leadership	3.47	0.62
Institutional Effectiveness	3.44	0.65
Student Achievement	3.46	0.63

The mean of the six leadership items was  $M = 3.47$  ( $SD = 0.62$ ) which corresponded to a moderate positive view of leadership effectiveness by the respondents. The comparison of the mean scores of the study variables is presented in figure 1.



**Figure 1.** Mean Comparison of Educational Leadership, Institutional Effectiveness, and Student Achievement

The analysis of statements item-by-item indicated that the statements associated with goal communication and participatory decision-making had a higher mean value ( $M > 3.50$ ) as compared to those associated with conflict management ( $M < 3.40$ ). The percentage analysis showed that around 68-72% of the respondents considered Agree or Strongly Agree, which means that the perception of leadership practices is generally positive. These findings indicate that leadership behaviors are positively viewed, which will act as a valid foundation on which one may infer.

**3.2 Institutional Effectiveness Analysis**

Pearson Descriptive statistics were used to analyze the institutional effectiveness of six indicators. The mean score was M

= 3.44 (SD = 0.65), which indicates satisfactory institutional performance. There were higher mean scores in the teaching quality and academic objective achievement (M = 3.50), and lower scores were a bit lower in adaptability to change and administrative efficiency (M = 3.353.40). According to percentage distribution, almost 65-70 % of the respondents expressed positive agreement with statements concerning institutional functioning. The moderately steady standard deviation indicates a moderate level of variability, with perceptions of institutional effectiveness relatively steady over the sample.

**3.3 Student Achievement Analysis**

Mean and percentage analysis were also used to analyze student achievement indicators. The mean score of the composite was M = 3.46 (SD = 0.63), which implies that the level of student performance and involvement was moderate and high. Student motivation and active participation items were found to have higher mean values (M > 3.50) whereas critical thinking and consistent improvement were somewhat lower yet positive (M ≈ 3.40). On the positive statements regarding student achievement, around 67-71 % of the respondents agreed with the statements. The findings note that there is a general favorable performance by the students and is in line with the performance levels in the institution.

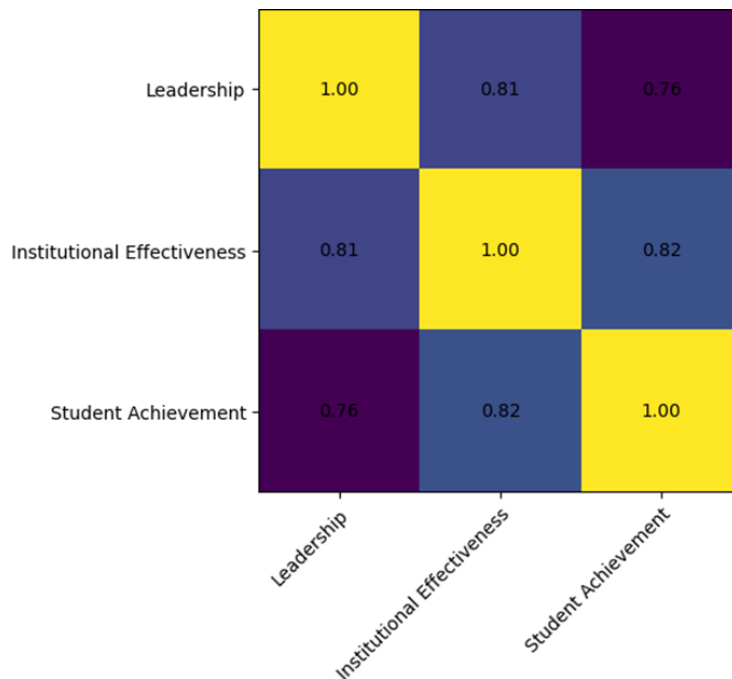
**3.4 Relationship between Educational Leadership and Institutional Effectiveness**

The correlation analysis between educational leadership practices and institutional effectiveness was carried out using Pearson correlation analysis in Excel. The correlation between the variables in the study is shown in Table 2.

**Table 2.** Correlation Matrix of Study Variables

Variables	Leadership	Institutional Effectiveness	Student Achievement
Educational Leadership	1.00	0.81	0.76
Institutional Effectiveness	0.81	1.00	0.82
Student Achievement	0.76	0.82	1.00

The findings revealed that there was a strong positive correlation (r = 0.81, p < 0.01) which showed that the association between the two variables was statistically significant. This heat map of correlation between educational leadership, institutional effectiveness and student achievement is provided in Figure 3.



**Figure 3.** Heat Map of Correlation Matrix of Study Variables

This large correlation coefficient indicates that the positive changes in leadership practices are closely related to the increase of institutional effectiveness. The coefficient determination (r<sup>2</sup> = 0.656) shows that the variance in institutional effectiveness

(65.6%) can be attributed to educational leadership practices. This result is very valid to the research objective and proves the importance of leadership in the development of institutions.

**3.5 Relationship between Educational Leadership and Student Achievement**

Pearson correlation was also used to determine the relationship between educational leadership and student achievement. The result of the analysis showed that leadership practices have a strong positive correlation (r = 0.76, p < 0.01), which means that leadership practices have a significant impact on student outcomes. According to the coefficient of determination (r<sup>2</sup> = 0.578), it is possible to state that about 57.8 % of the student achievement variance is accounted by

the leadership practices. This outcome indicates that leadership can have a direct and indirect impact on student performance through enhancing institutional processes and quality of teaching. The statistically significant relationship validates the significance of leadership as far as the development of effective learning environments is concerned.

### 3.6 Statistical Significance and Predictive Analysis

To further examine the predictive impact of educational leadership, regression analysis was conducted using Excel. Table 5 presents the results of the regression analysis examining the predictive role of educational leadership.

**Table 3.** Regression Analysis Results for Institutional Effectiveness and Student Achievement

Dependent Variable	R <sup>2</sup>	Beta (β)	t-value
Institutional Effectiveness	0.656	0.81	18.50
Student Achievement	0.578	0.76	15.90

The results showed that educational leadership is a statistically significant predictor of institutional effectiveness and student achievement as well. To attain institutional effectiveness, the regression model produced an R<sup>2</sup> of 0.656 which is a good sign of an explanatory power. Similarly, model predictors had an R<sup>2</sup> of 0.578, which creates a significant predictive correlation, in terms of student achievement. The regression coefficients were positive implying that the greater the effectiveness of leadership, the greater the two dependent variables. This is supported by the level of significance ( $p < 0.01$ ) which indicates that the results are statistically sound. These findings align with the hypotheses of the research and show that educational leadership is one of the determinants of the improvement of the performance of institutions and students.

### 4. Discussion

The research results suggest that educational leadership is very effective in improving institutional effectiveness and student achievement. The moderate to high mean scores of all the variables indicate that the respondents have a positive perception of leadership practices, institutional performance, and student outcomes. Even better, the high positive correlations and the regression coefficients demonstrate that there are not only positive correlations between leadership and institutional functioning and student performance, but that the former is a predictor of the latter. According to these results, one of the main leadership practices that can directly result in better educational outcomes is effective communication, participatory decision-making, and support mechanisms. This can be used to demonstrate that leadership is important in the creation of institutional culture and effectiveness (Bush, 2021). Furthermore, institutional success and sustainability can also be promoted by leadership models that emphasize organized, goal-oriented practices (Leithwood et al., 2020). The findings are similar to the earlier literature which has demonstrated that leadership can directly and indirectly impact student achievement. This near statistical relationship between leadership and institutional effectiveness aligns with the literature that believes that leadership has the potential to positively impact school conditions that in turn yield to improved teaching and learning results (Grissom et al., 2021). Similarly, the forecasting aspect of leadership that is present in this study reinforces the argument that effective leaders are instrumental in defining the performance of the teachers, the performance of the organization, and student engagement (Hitt and Tucker, 2016). The particular importance of leadership practices in dynamic and uncertain situations is also critical, as the adaptability and responsiveness to stay institutional becomes crucial (Harris and Jones, 2020). Moreover, student achievement has been found to be mediated by leadership, such as by enhancing classroom teaching and teacher collaboration (Sebastian and Allensworth, 2012). The findings also support the conceptual idea that leadership influences the long-term academic outcomes. According to meta-analytic evidence, the influence of leadership on the student achievement in a variety of educational contexts is measurable and significant (Karadağ et al., 2015). The results of this study, which have been backed by good correlation and regression, confirm that leadership is not a mere administrative role but a key determinant of success in education. Moreover, leadership also affects teacher performance paths and the performance of teachers, which results in even greater student outcomes (Xu et al., 2015). Leadership is also important in managing change and creating innovation due to the role it plays in the formation of complex and adaptive educational systems (Kershner and McQuillan, 2016). These findings have far-reaching implications on educational leadership practices. The leaders need to focus on communication, collaboration, and participatory decision-making methods to improve institutional effectiveness.

Leadership development programs need to incorporate transformational and instructional leadership styles to ensure that their effects are the most effective in terms of the outcomes of the institutions and students (Day et al., 2016). Additionally, leadership practices based on the students are necessary to enhance the learning experiences and create engagement since they correspond leadership approaches to the expectations and needs of the students (Haber-Curran and Tillapaugh, 2015). New directions of leadership, including servant leadership, only heighten the value of stakeholder support and promotion of organizational citizenship behavior especially in the changing digital and educational settings (Nguyen et al., 2025). Practically, the learning institutions are supposed to invest in leadership development initiatives wherein emphasis has been placed on individual competencies as well as organizational strategies. Continuous professional development

opportunities, mentorship programs, and structured training programs can significantly enhance the level of leadership. It has also been demonstrated that the contexts of leadership development in higher education need to be planned and aligned to institutional goals to achieve sustainable improvement (Dopson et al., 2019). Additionally, the institutions need to institute evidence-based decision-making to facilitate the evidence-based leadership practices and, consequently, improve the performance and student outcomes in institutions.

Leadership is also critical in determining organizational situations that affect teacher retention and performance. Positive working conditions, effective leadership vision, and collegial working conditions help to increase teacher satisfaction and decrease turnover, which positively impacts student achievement (Kraft et al., 2016). By assisting in developing a positive organizational culture, leaders can provide an environment that will enable teachers and students to give their best. This emphasizes the inter-relationship between leadership, institutional effectiveness and student achievement.

As much as it has contributed, the study has some limitations. This can also be the case in the survey data in the form of questionnaire as it can be prone to bias during the answering of the questions and the size of the sample in the questionnaire is sufficient but might limit the extrapolation of the findings. Excel as a statistical tool could be useful in instances where simple techniques are used but it might hamper the application of more complex analysis models. The research is also more

quantitative inclined and there is absence of qualitative data that can be utilized to deliver a bigger knowledge regarding leadership practices. Further studies need to embrace bigger and more heterogeneous samples and mixed methods to increase the strength of results. Longitudinal studies would also be helpful in quantifying the effects of leadership long-term on institutional effectiveness and student achievement.

In general, the results of this research have a solid empirical basis on the importance of educational leadership in enhancing institutional performance and student achievement. Combining best leadership practices with evidence-based strategies, schools and colleges can implement significant and sustainable performance and outcomes change.

## 5. Conclusion

The present paper demonstrates that educational leadership can be rather useful in terms of enhancing institutional effectiveness and student success. The result shows that leadership practices such as communication, decision-making, and support have a positive impact on both organizational performance and student outcomes. The moderate-high means indicate that the respondents hold a positive attitude towards leadership and the way institutions operate, but the high correlations are evidence that the variables have substantial relations. Regression results further demonstrate that educational leadership is a strong predictor of institutional performance and student achievement, which implies the important role of educational leadership in educational results determination. These results suggest that much can be done to enhance institutional performance and student learning by enhancing leadership practices. The education leaders are then expected to inculcate effective leadership styles, teamwork and enhance positive learning environments. Another important conclusion of the research is the importance of evidence-based decision-making and continuous learning to become a good leader. Despite some valuable insights into the study, it has a weakness in the sense that it uses quantitative data and a specific sample size. The future research should be conducted on more diverse and larger samples, and mixed method designs to understand more about leadership practices. In general, the study substantiates the topicality of educational leadership as one of the factors that can determine the achievement of sustainable gains in institutional performance and student achievement.

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