



INTERSECTION BETWEEN ARTIFICIAL INTELLIGENCE, EFFECTIVE COMMUNICATION AND SCHOOL LEADERSHIP IN PLATEAU STATE, NIGERIA: LITERATURE PERSPECTIVE



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Abstract

This literature review investigates the relationship between artificial intelligence (AI), effective communication, and school leadership. The study acknowledges effective communication as the foundation of successful school leadership and has an impact on stakeholder collaboration, student achievement, and teacher morale. It also revealed that there is poor communication between principals and other educational stakeholders in Plateau state as well as examined the enduring obstacles to good communication. According to the review, AI-powered solutions have the revolutionary potential to remove these obstacles by improving communication's timeliness, relevance, and clarity. In order to promote data-driven decision-making, individualized support, and consistent feedback, it examines how AI might enhance school leaders' upward, downward, horizontal, and diagonal communication channels. But there are drawbacks to integrating AI, such as the requirement for proper training, infrastructural limitations, and data privacy issues. The study comes to the conclusion that, although AI offers a great chance to transform school leadership communication and enhance educational outcomes in Plateau State, its effective application necessitates strong legislative frameworks, and specialized teacher training among others.

Introduction

Education is important for both personal growth and national progress. It is only through education that human resources are transformed into human capital required for socio-economic advancement among others. As such, schools are not mere buildings, they are centres of human capital production. And, for these centres to function well, their leaderships should be highly effective. This is so because leadership is the fulcrum upon which other school functions (both academic and administrative) heavily relies. In line with this, Leithwood, Harris and Hopkins (2020) posited that improving teacher morale, student achievement and overall school performance are positively correlated with effective school leadership. This is true because effective leadership is highly invaluable in helping teachers improve their pedagogical techniques and meeting the unique requirements of students by offering material and non-material support, and feedback. Contrastingly, a bad school culture with low teacher morale and poor student achievement maybe fostered by a deficient or ineffective school leadership.

One of the most important components of effective leadership is communication. Communication is essential to school leaders in undertaking their function of guiding or directing as it allows school leaders to establish rapport, share their vision and encourage cooperation among stakeholders (Hallinger & Heck, 2017). As a result, it is not an overstatement to say communication is



the mitochondria of all administrative functions in the school. School leaders such as principals communicate in a number of ways, such as horizontally with peers, diagonally with external stakeholders, downwardly with teachers or instructors and pupils, and upwardly with parents and teachers. In other words, school leaders have different forms of communication, such as upward, downward, horizontal and diagonal.

While the place of communication is central in school leadership, effective communication has been tasking to principals and school leaders, until the advent of Artificial Intelligence (AI). It is no longer news that AI has found its way into all sectors of human endeavour, education inclusive. Today, artificial intelligence (AI) is being used in education more and more in improving teaching, learning, and administrative procedures (Zawacki-Richter, Recttin, & Smyrnova, 2019). AI does not just add value to communication, it revolutionizes it. This AI-powered revolutionization could be by automating repetitive processes, enabling data-driven decision-making, and offering individualized support (Williamson, 2017). AI-powered communication tools, for example, can assist school leaders in facilitating the sharing of information, obtaining input, and encouraging teamwork.

In a study by Chucks and Goyit (2020) on communication and administrative effectiveness of public secondary school principals in Plateau State, the findings revealed that there is poor and ineffective communication between principals and other school stakeholders. This, according to them, hampered administrative effectiveness of their schools. This aligns with Chiamaka (2017) whose finding considered failure in communication as a major administrative problem that led to inconsistencies in policy implementation. Educational difficulties, such as a lack of funding, poor facilities, and sociocultural hurdles could also be linked to ineffective communication (Adebayo, 2018). As such, effective communication by school leaders can be extremely important in doing away with such challenges and for raising student achievement. For instance, through effective communication, principals can persuade governments, spirited individuals, organizations and communities to assist in providing infrastructure and other resources needed by their schools. In addition, teachers' performance can be improved through effective communication by the principals (Sofia, Syaidah & Shunhaji, 2023).

The purpose of this review study is to evaluate how AI could affect school leaders' communication among Plateau State secondary schools. This study intends to provide light on how AI could boost school leaders' effectiveness and raise educational standards in Plateau State by examining the relationship between AI, communication, and school leadership.

Objectives of the Review

The review specifically aims to:

1. Analyse the importance of effective communication among school leaders
2. Identify the forms of communication used by school leaders
3. Examine how AI-powered tools can enhance school leaders' communication
4. Examine the difficulties of AI-powered communication

The Importance of Effective Communication Among School Leaders

As earlier stated, one of the most important components of effective leadership is communication. It is through communication that the school leader directs what must be done, how and by whom, in order to achieve the pre-determined goals of the school. It enables school leaders to convey their vision, build trust and foster collaboration among teachers, students and the community. This aligns with the submission of Hallinger and Heck (2017), that communication allows school leaders to establish rapport, share their vision and encourage cooperation among stakeholders.

Based on the above, it can be concluded that poor or ineffective communication could have several severe consequences among which include inarticulate or poorly shared vision, ineffective decision-making, low staff morale and community distrust among others. Poor decision could be made from misunderstandings, misinterpretation and incorrect implementations arising from poor communication. Similarly, when communication is poor, teachers may feel undervalued, unappreciated, and uninformed, leading to decreased motivation and productivity. In addition, lack of transparency and effective communication can erode trust between the school and the community, making it challenging



to build partnerships and secure support. Therefore, it is not an overstatement to say communication is the mitochondria of all administrative functions in the school. Unfortunately, there is poor communication among principals in Plateau state (Chucks & Goyit, 2020).

The Forms of Communication Used by School Leaders

A school leader's ability to communicate effectively is essential for effective school leadership. School leaders such as principals communicate in a number of ways, such as horizontally with peers, diagonally with external stakeholders, downwardly with teachers or instructors and pupils, and upwardly with parents and teachers. In order to get input, resolve issues, and establish rapport, school leaders engage in upward communication with parents and teachers. This kind of communication promotes a cooperative learning environment in schools by assisting the leaders in understanding the needs and worries of teachers (Hallinger & Heck, 2017). Leaders can communicate at the highest levels using a variety of methods, including open-door policy, surveys, and frequent meetings.

School leaders use downward communication to communicate information, give criticism, and set expectations with teachers and students. School leaders can support teacher development, encourage student accomplishment, and mold school culture with the use of this kind of communication (Leithwood et al., 2020). School leaders can communicate downward through a variety of platforms, including announcements, newsletters, and staff meetings.

In order to exchange best practices, work together on initiatives, and establish connections, school leaders engage in horizontal communication with other school leaders and educators. School leaders can share knowledge, build a feeling of community, and learn from others through this kind of communication (Spillane, 2019). School leaders can communicate horizontally using a variety of platforms, including online forums, networking events, and professional learning networks.

School leaders and educators engage in diagonal communication when speaking with parents, community members, and district representatives, among other external stakeholders. School leaders can gain resources, foster relationships, and enhance the school's reputation with the use of this kind of communication (Krüger, Witziers, & Slegers, 2018). School leaders can communicate diagonally using a variety of platforms, including social media, community events, and parent-teacher conferences.

How AI-Powered Tools can Enhance School leaders' Communication

Despite its significance, school leaders' communication can be difficult for a number of reasons, such as: conflicting priorities and time constraints (Hallinger & Heck, 2017); various stakeholder expectations and needs (Leithwood et al., 2020); limited infrastructure and resources (Krüger et al., 2018); and linguistic and cultural obstacles (Lumby & Morrison, 2010) among others. To effectively connect with different stakeholders and foster a positive school climate, principals must overcome several obstacles.

One of the effective means of overcoming these obstacles is by deploying Artificial Intelligence (AI). AI can help improve relationship between school leaders and different stakeholders by encouraging frequent communication and feedback (Leithwood et al., 2020); offering resources and individualized support (Shute, 2008); and facilitating problem-solving and decision-making based on data (Williamson, 2017).

According to Williamson (2017), AI-powered communication enhanced effectiveness when doing administrative duties. And, the effectiveness of communication could be greatly impacted by the incorporation of artificial intelligence (AI) in terms of relevance, timeliness, and clarity of communication. AI-powered communication technologies can improve timeliness, relevance, and clarity in a number of ways. Consistent and prompt communication can be guaranteed by automated messaging systems (Kim, Lee, & Kim, 2020). In addition, stakeholders can receive clear and succinct information from chatbots driven by AI (Shah, Horne, & Capella, 2019). Similarly, messages can be customized to meet the needs and interests of each individual using personalized communication platforms (Krüger et al., 2018).



By offering cutting-edge instruments and platforms to improve upward, downward, horizontal, and diagonal communication, artificial intelligence (AI) can revolutionize Plateau state principals' communication in the following ways:

In terms of upward communication, principals can make data-driven decisions by using AI-driven feedback systems to collect teacher and student insights (Kim et al., 2020). These systems are capable of examining feedback data to find patterns and areas that need work, making tailored suggestions for school leaders and teachers, and encouraging frequent feedback loops to track improvement.

In addition, principals' downward communication can be enhanced by using AI-powered personalized learning systems to customize curriculum to meet each student's needs (Shute, 2008). These platforms are able to provide individualized educational materials and content; offer immediate evaluation and comments; and give principals the ability to monitor student development and modify instruction.

Similarly, AI-powered collaboration platforms can help teachers and principals communicate and exchange knowledge, creating a sense of belonging and expertise (Spillane, 2019). These platforms are able to facilitate document sharing and real-time collaboration; encourage administrators and teachers to participate in online communities of practice; and make resources and best practices accessible.

In the same vein, principals can improve their communication with external stakeholders, including parents and community members, by utilizing AI-powered stakeholder engagement platforms (Krüger et al., 2018). These platforms are able to encourage feedback and two-way communication; give individualized information and updates; and give principals the opportunity to forge closer bonds with stakeholders.

The Difficulties of AI-Powered Communication

Despite the above, there are certain obstacles and restrictions to AI-powered communication in the school setting. They are: infrastructure constraints and technical problems (Selwyn, 2019); data security and privacy issues (Kumar, Singh, & Kumar, 2020); training and support for teachers are necessary (Zawacki-Richter et al., 2019); the possibility of an over dependence on technology and a decline in interpersonal communication (Buckingham, 2019).

Principals need to be aware of these difficulties and constraints in order to optimize the advantages of AI-driven communication.

Key Findings

The following are the key findings from the review:

1. Effective communication is central to effective school leadership
2. There is ineffective communication between principals and other educational stakeholders in Plateau state.
3. In educational settings, AI-driven communication tools can improve communication clarity, timeliness, and relevance.
4. School leaders (principals) and other stakeholders, such as teachers, students, and parents or guardians, can have better relationships as a result of Artificial Intelligence (AI).
5. Regular feedback, individualized support, and data-driven decision-making can be facilitated by AI-powered solutions, which can enhance student results and school efficacy.
6. Technical difficulties, worries about data security and privacy, the requirement for teacher assistance and training, and the danger of being overly dependent on technology are some of the possible drawbacks and restrictions of AI-driven communication.

Conclusions

Based on the above, the following important conclusions are made:

1. AI-powered communication technologies can improve the timeliness, relevance, and clarity of communications.
2. AI can strengthen ties between school leaders and stakeholders.



3. AI-powered solutions can help with data-driven decision-making, individualized support, and frequent feedback.
4. Technical difficulties, worries about data security and privacy, and the requirement for teacher assistance and training are examples of potential obstacles and constraints.

Implications for Future Research, Practice, and Policy

The results from the above have consequences for future research, practice, and policy as thus:

1. Create policy frameworks and rules for the use of AI in schools while protecting the security and privacy of student data.
2. Train and assist teachers and school leaders in using AI-powered communication tools.
3. Examine how AI will affect student outcomes and principals' communication in the long run.

Suggestions for Using AI to Improve School Leaders' Communication Effectiveness

In order to successfully use AI the following suggestions are made:

1. Create communication platforms with AI that are suited to schools' requirements.
2. Offer training and support to help principals and teachers use AI-driven tools efficiently.
3. To safeguard sensitive data, create data privacy and security procedures.
4. Keep an eye on and assess how AI affects student outcomes and principals' communication.
5. To exchange best practices and tackle issues, promote cooperation among stakeholders, policy makers, and schools.

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