# Principals' Leadership and Technology Integration on Secondary Schools' Management in Khomas Region, Namibia

**Daniel K. Mbangula**
**University of Namibia**

*There are numerous variables that impact innovation integration within the classroom such as educator willingness, availability of equipment, and proficient development of staff. Taking under consideration these components, this paper describes inquire about on innovation integration with a centre on principals' demeanours. The part of the vital in classroom hone was found to be considerable. The reason of this investigate was to survey the current attitudes concerning innovation integration in schools from the school principal's viewpoint. Considers cantered on school information-communication innovation (ICT) integration roles mostly concentrate on principals' points of view on their parts for an effective integration arrange. As ICT accessibility increments, they require for a common-sense integration arrange covering more parts and aspects of energetic ICT integration in school management increases too. Innovation authority drives the technology integration program of any instructive institution. School administrators take challenging errands in integrating technology within the classroom. Their parts are basic to ensure that students' learning in today's setting is globally relevant.*

*Keywords: secondary school, technology integration, principals, teachers, leadership*

## INTRODUCTION

Instruction frameworks around the world must be brace for the up and coming Fourth Industrial Insurgency as the work showcase will be to a great extent prompted by the progression of the computerized economy, mechanical autonomy, artificial intelligences and robotization innovation. In any case, certain human related capacities stay significant, making them fundamental virtues of the human capital looked for by the up and coming mechanical period. The impending challenge hence requires all school principals and teachers to receive an open intellect on the changes and progresses brought by rapid development in innovation (Raamani & Arumugam, 2018). Much investigate has been done on technology integration from the teachers' point of view, in any case, investigate is missing from that of the school site administrator known as the principal. The aptitude of positive innovation integration may be a developing need for public school instructors. Numerous instructors currently don't have the mechanical familiarity to achieve the objectives of the technology integration in an institution such as school. A wide body of considers on research-based proficient advancement exists; however, most of this inquire about is pointed at or concerns as it were instructors. It is critical for administrators and teachers to work together on the common objective of preparing the youth for long-standing time. In case principals don't put a value on innovation within the classroom, a fundamentally piece of the surprise is lost. An interface between the two entities could make a more profound level of collaboration and participation (Machado & Chung, 2015). This research is

therefore investigating the current state of technology integration by Khomas principals and how technology is being integrated into the instructional methods at all district schools.

Innovation has changed the way individuals live. The part of school leadership, teaching approaches, and school development have too changed within the mechanical era 4.0 due to progressed innovation such as Manufactured Insights and the internet. Moreover, the challenges confronting school directors nowadays diverse than their predecessors, since numerous variables impact the integration of innovation in schools some of these are need of ICT preparing, instructors 'competence in ICT, and get to ICT assets. Considering Administration is the key operator within the effective implementation of innovation in schools (Fadia & Derar, 2022).

## LITERATURE REVIEW

Technology has changed the way individuals live. The part of school leadership, teaching approaches, and school advancement have too changed within the mechanical era 4.0 due to progressed innovation such as Artificial Intelligence and the internet. Moreover, the challenges confronting school chairmen nowadays diverse than their predecessors, since numerous components impact the integration of innovation in schools some of these are need of ICT preparing, teachers 'competence in ICT, and get to ICT assets. Considering Authority is the key specialist within the effective implementation of innovation in schools. This investigate pointed to explore the influence of principals' innovation authority and proficient advancement on teacher's innovation integration with gender and involvement as moderation variables. Appropriately, innovation integration must be executed in a significant, practical manner to realize its benefits. Instructive pioneers must work to diminish boundaries to effective instructional innovation integration. The guidelines start with the administration and vision to spur a shared vision for the complete integration of innovation and advance an environment and culture to achieve the vision. To do this, principals help in a shared vision with understudies, instructors, guardians, and community members (ISTE, 2018). Since principals are the foremost basic calculate of effective ICT integration in schools' specialists (Adams & Muthiah, 2020; Bellibas & Liu, 2018; Sergiovanni, 2009), principals may advantage from this inquire about to get it teachers' recognitions of their parts in effectively integrate guidelines innovation in schools (National Centre for Instruction Insights, 2010).

Raman and Thannimalai (2019) highlights the significance of studying sex as a directing variable between innovation authority and teacher's technology integration, and other variables such as school area and school climate. Innovation administration comprises of all exercises related to innovation within the school, including the organization's choices, approaches, and usage of innovation. To ensure expanded utilize of the Web, integration of innovation, and utilize of technology tools by students in schools, there's a require for solid innovation leadership (Thannimalai & Raman, 2018), and when talking around school innovation leadership, the observational considers and writing of Anderson and Dexter (2005) cannot be neglected, as they are the foremost comprehensive in this field, in expansion to displaying a demonstrate based primarily on innovative administration. This demonstrate was recognized by its explanation of the two-way relationship between innovation authority and foundation for school. Hence, this study still digs deep to understand the relevance of technology integration in the school leadership and instructional use to make school a productive environment.

The concept of great central organization is through their association in each planned activity (Liu, et al., 2021). The central is additionally the most excellent part show and supporter of each citizen within the organization he or she leads. Principals can too be the trigger for the more safe, legitimate, and moral utilize of ICT. Hence, the question that emerges is what the most excellent character for principals to actualize to raise the capacity of instructors to use ICT in schools is? Already, ponders by Esplin et al. (2018), and Yu and Sovereign (2016) suggested that principals ought to get it and develop the character as an innovation pioneer suggested by the National Educational Innovation Guidelines for Organization (NETS-A). Demonstrated through their study, a technology pioneer can trigger a teacher's capacity in utilizing ICT within the classroom. Other than, the character of a technology pioneer is so synonymous with the brilliance of regulating and overseeing ICT-based school organizations. Endeavours towards organizational

administration fabulousness will be productive if principals successfully master the information and aptitudes related to ICT. In like manner, there's a proposal that all principals strengthen ICT competencies as a ticket to extend the character of innovation administration Wei (2017). ICT competencies can be constructed through proficient advancement programs that emphasize organizational management and organization angles through a mechanical approach Wei (2017). As it were through ICT knowledge and abilities can help principals follow the genuine character of innovation authority.

**Strategies That Enable Principals to Implement Technology Integration in Secondary Schools**

In terms of innovation integration in schools, situational leadership style can be quite effective as distinctive circumstances call for a diverse leadership style (Hartini, 2019). Having a vision and plan which depends on a particular leadership style alone is not enough to actualize innovation integration viably. Teachers and principals need to be prepared and bolstered, they too ought to have the correct ICT infrastructure and equipment and specialized bolster. This area discusses the techniques that when applied in conjunction with the correct leadership style for the setting can guarantee the effective implementation of innovation integration in educational institutions.

**Training for Technology Integration and Implementation**

Concurring to Akcil et al. (2021) innovation integration in instructing and learning process could be a multidimensional and complex process that includes school management, technological gadgets, teachers, learners, educational programs and a sustainable and overhauled instructing learning process. Furthermore, one of the challenges with innovation integration lies with the need of adequate preparing and understanding of how computers can be utilized to deliver education (Cakir, 2012; Ghavifekr et al., & Rosdy, 2015). In Namibia, the use of computers in teaching and learning within the classroom isn't successful and schools that have computers utilize them primarily for organization purposes rather than educating and learning (Gervasius, 2020).

Moreover, schools with constrained or no innovation integration are ordinarily driven by principals who need appropriate preparing in ICT and need normal staff advancement in terms of ICT after them to begin with degree at Colleges (Afshari et al., 2012; Osman et al., 2018; Uğur and Koç,2019). A school vital would have to be learned (Chang, 2012) and skilful (Claro et al., 2017) for innovation integration to be viable in instructing and learning processes. They ought to moreover make beyond any doubt teachers are provided with preparing on ICT to effectively utilize it within the classroom (Claro et al. 2017). This sort of preparing can take the frame of formal instruction and proceeding proficient improvement training (Raman et al., 2014).

**Investment in ICT Infrastructure and Equipment in Teaching and Learning**

It is advance contended that in expansion to preparing to utilize innovation viably in a classroom, an investment in ICT for the school and educator bolster (Ghavifekr and Rosdy, 2015; Laouni, 2020; Raman, 2019) are basic for successful technology integration. School leaders ought to contribute within the fundamental ICT framework to achieve the school's innovation arrange (Raman et al., 2014). 21 According to the U.S. Division of Instruction (2017) school pioneers ought to claim the acquisition and support of the ICT infrastructure by trying to find back and donations to finance get to quick and steady network and learning advances.

**METHODOLOGY**

A desktop study was used to carry out the study, by reviewing and analysing qualitative research articles that were carried out on principals' leadership and technology integration on secondary schools' management. The articles were reviewed, findings were obtained and analysed by establishing themes. The themes were interpreted and discussed to produce thoroughly understanding on how technology integration on secondary schools' management maximised principals' management duties.

## RESULTS AND DISCUSSIONS

The analysis of data provided the findings, discussed according to the following themes:

### Strategies to Implement Technology Integration in Secondary

Principals need to have vision of what they want the schools to be or look like in the near future in terms of performance and teaching and learning output. Subsequently, manging the school and its infrastructures as well as human resources requires technological advancement for proper monitoring and evaluation. Both principals and teachers need to be prepared on how to make best use of the ICT within their schools. Concurring to Akcil et al. (2021) innovation integration in instructing and learning process could be a multidimensional and complex process that includes school management, technological gadgets, teachers, learners, educational programs, and a sustainable and overhauled instructing learning process. Furthermore, one of the challenges with innovation integration lies with the need of adequate preparing and understanding of how computers can be utilized to deliver education (Cakir, 2012; Ghavifekr et al., & Rosdy, 2015).

### Training to Ready Technology Integration and Implementation

There is always a problem associated with the new innovation. Therefore, before introducing new technology to any school, teachers and principals must be trained and prepared for the new digital era within their school set up so that it will yield to be implementations. As it echoed by Cakir (2012) and Ghavifekr et al. and Rosdy (2015), one of the challenges with innovation integration lies with the need of adequate preparing and understanding of how computers can be utilized to deliver education. Hence, it is necessary to have adequate training for both teachers and principals for smooth transition to technological run secondary schools.

### Investing in ICT Infrastructures

One of the predicaments to successful integrates technologies within secondary schools is the lack of funds to buy and pay installers of technological infrastructures within the schools. Namibia is a developing country whereby lack of funds is always a case in many developing countries.

All principals have clear recognitions around instructive opportunities within the area of digitalization, indeed if numerous of their thoughts are not actualized at their school (and will not be within the close future). Surprisingly, all the principals see computerized innovation as an opportunity in connection to individualized instructing and independent learning, irrespective of their leadership style. They accept that specialized alter or the integration of digital media will lead to student-oriented educating. A few principals communicated the feeling that through digitalization, the part of instructors both will and must alter. Already, ponders by Esplin et al. (2018), and Yu and Sovereign (2016) suggested that principals ought to get it and develop the character as an innovation pioneer suggested by the National Educational Innovation Guidelines for Organization (NETS-A). Demonstrated through their study, a technology pioneer can trigger a teacher's capacity in utilizing ICT within the classroom. Teachers' in-service proficient improvement that targets made strides computerized aptitudes ought to be prioritized in this mechanical age. As already famous, as it were less than a third of instructors within the zone had innovation preparing. Out of those prepared, only ICT teachers and a number of private school instructors had fundamental computer aptitudes. A school vital would have to be learned (Chang, 2012) and skilful (Claro et al., 2017) for innovation integration to be viable in instructing and learning processes. They ought to moreover make beyond any doubt teachers are provided with preparing on ICT to effectively utilize it within the classroom (Claro et al. 2017). This sort of preparing can take the frame of formal instruction and proceeding proficient improvement training (Raman et al., 2014).

**CONCLUSION**

In any case, there are still advancements that have to be executed by principals to guarantee that they fully ace the character of innovation inventors. The circumstance based on three more measurements, namely visionary authority, advanced age learning culture and systemic advancement, which must be moved forward from time to time. Coherently, in the event that principals' hone is strengthened, it is likely that these three components can too have a critical effect on teachers' self-efficacy. It too affected by other variables such as school climate, study area, natural culture and diverse consider approaches. Future researchers will be more interesting if they can highlight the observational prove on the improvement of instructor self-efficacy.

**REFERENCES**

Adams, D., & Muthiah, V. (2020). School principals and 21st century leadership challenges: A systematic review. *Journal of Nusantara Studies*, *5*(1), 189–210. http://dx.doi.org/10.24200/jonus.vol5iss1pp189-210

Akcil, U., Uzunboylu, H., & Kinik, E. (2021) Integration of Technology to Learning, Teaching Processes and Google Workspace Tools: A Literature Review. *Sustainability*, *13*(9) 5018. https://doi.org/10.3390/su13095018

Anderson, R., & Dexter, S. (2005). School technology leadership: An empirical investigation of prevalence and effect. *Educational Administration Quarterly*, *41*(1), 49–82.

Bellibas, M.S., & Liu, Y. (2018). The effects of principals' perceived instructional and distributed leadership practices on their perceptions of school climate. *International Journal of Leadership in Education*, *21*(2), 226–244.

Cakir, R. (2012). Technology integration and technology leadership in schools as learning organizations. *The Turkish Online Journal of Educational Technology*, *11*(4), 273–282

Chang, I.-H. (2012). The Effect of Principals' Technological Leadership on Teachers' Technological Literacy and Teaching Effectiveness in Taiwanese Elementary Schools. *Educational Technology and Society*, *15*(2), 328–340.

Claro, M., Nussbaum, M., López, X., & Contador, V. (2017). Differences in Views of School Principals and Teachers regarding Technology Integration. *Educational Technology and Society*, *20*(3), 42–53.

Esplin, N.L., Stewart, C., & Thurston, T.N. (2018). Technology leadership perceptions of Utah elementary school principals. *Journal of Research on Technology in Education*, *50*(4).

Fadia, A., & Derar, E. (2022). Effect of Principal's Technology Leadership on Teacher's Technology Integration. *International Journal of Instruction*, *15*(1), 781–798. https://doi.org/10.29333/iji.2022.15145a

Gervasius, N. (2020) *Compulsory e-learning in Namibia's public schools: A commendable idea marred by the digital divide*. Windhoek: Namibia

Ghavifekr, S., & Rosdy, W.A.W. (2015). Teaching and learning with technology: Effectiveness of ICT integration in schools. *International Journal of Research in Education and Science (IJRES)*, *1*(2), 175–191.

ISTE. (2018). *Iste standards for education leaders*. Retrieved from https://www.iste.org/standards/for-Education leaders.

Laouni, N. (2020). An investigation into the relationship between principals' leadership styles and level of technology integration in Moroccan public schools. *International Journal of Leadership in Education*. DOI: 10.1080/13603124.2020.1799436

Liu, Y., Bellibas, M.S., & Gumus, S. (2021). The effect of instructional leadership and distributed leadership on teacher self-efficacy and job satisfaction: Mediating roles of supportive school culture and teacher collaboration. *Educational Management Administration & Leadership*, *49*(3).

Machado, L.J., & Chung, C. (2015). Integrating Technology: The Principals' Role and Effect. *International Education Studies*, *8*(5). ISSN 1913-9020 E-ISSN 19139039. DOI:10.5539/ies.v8n5p43

National Centre for Education Statistics. (2010). *Rural education in America. U. S. Department of Education, Institute of Educational Sciences*. Retrieved from http://nces.ed.gov/surveys/ruraled/page2.asp

Osman, W., & Zakaria. (2018). *Assessment of Factors Affecting E-learning: Preliminary Investigation*. Retrieved from https://www.researchgate.net/publication/32766987

Raamani, T., & Arumugam, R. (2018). The influence of principals' technology leadership and professional development on teachers' technology integration in secondary schools. *Malaysian Journal of Learning and Instruction*, *15*(1), 201–226.

Raman, A., & Thannimalai, R. (2019). Importance of Technology Leadership for Technology Integration: Gender and Professional Development Perspective. *SAGE Open*, *9*(4), 2158244019893707.

Raman, A., Don, Y., & Latif Kasim, A. (2014). The Relationship between Principals' Technology Leadership and Teachers' Technology Use in Malaysian Secondary Schools. *Asian Social Science*, *10*(18). http://dx.doi.org/10.5539/ass.v10n18p30

Sergiovanni, T.J. (2009). *Rethinking leadership: A collection of articles*. Thousand Oaks, CA: Corwin Press.

Thannimalai, R., & Raman, A. (2018). The Influence of Principals' Technology Leadership and Professional Development on Teacher's Technology Integration in Secondary Schools. *Malaysian Journal of learning and Instruction*, *15*(1), 203–228.

U.S. Department of Education, Office of Educational Technology. (2017). *Reimagining the Role of Technology in Education. 2017 National Education Technology Plan Update*. Washington, DC. Retrieved from http://tech.edu.gov

Uğur, N.G., & Koç., T. (2019). Leading and Teaching with Technology: School Principals' Perspective. *International Journal of Educational Leadership and Management*, *7*(1), 42–71. DOI:10.17583/ijelm.2018.3758

Wei, L.M. (2017). *Principal technology leadership practices, teacher ICT competency, and teacher acceptance of School Management System (SMS) in Negeri Sembilan secondary schools* [Doctoral Thesis, University of Malaya].

Yu, C., & Prince, D.L. (2016). Aspiring school administrators' perceived ability to meet technology standards and technological needs for professional development. *Journal of Research on Technology in Education*, *48*(4).