Implementation of Digital Leadership in Primary School

Dian Marta Wijayanti\*, Suwito Eko Pramono, Eko Handoyo, Sugi Sugi

Management Education, Postgraduate School, Universitas Negeri Semarang, Indonesia

\*Corresponding Author: dianmartaguru@students.unnes.ac.id

Abstract. Leadership in the 21st century must capably utilize technology to increase school quality. Various demands work not regardless of digital technology. Because of that, the principals must control digital skills in carrying out school management. The purpose of this research is to describe the implementation of digital leadership by head of Guru Penggerak Programme. The principal that was assigned from Guru Penggerak programme believe the capable become a pioneer of educational transformation. The method used in this research is qualitative descriptive design at 6 elementary schools (SD), namely SDN Lamper Lor, SDN Jabungan, SDN Jatibarang 03, SDN Pakintelan 02 , SDN Kuningan 03, and SDN Karangroto 04. Data collection was carried out through interviews with headmaster. The findings of this research show that six schools led by principals from Guru Penggerak Programme graduates have implemented digital leadership as an effort to achieve educational transformation. The achievements that have been made include seven pillars of digital leadership, namely student engagement and learning, student spaces and environment, professional learning and growth, communication, public relations, branding, and opportunity . This research provides contribution importance digital leadership applied in school’s base. As unit education that is not own power administration specifically , a principal want to study for control technology information. A number of the way it is done by school principals through digital platforms, learn through community practitioners, and study from YouTube for learn knowledge new education

Keywords: digital leadership, principals, primary school

INTRODUCTION

Currently, transformation has occurred so quickly, the Industrial Revolution Era is an era of very rapid technological development. With the rapid development of technology, various knowledge, new skills and new leadership are born in realizing the competitiveness of an educational institution. The research results show that a leader or leaders in the technological era can bring a team to a better realm.

Future leaders must master 10 skill models, namely complex problem solving, critical thinking, creativity, management skills, coordination, emotional intelligence, making policies/decisions, service orientation, negotiation, and cognitive flexibility. The characteristics of digital leadership that exist in a school principal in the technological era include: responsibility and innovation in order to direct the organization's transformation towards digital.

The implementation of digital leadership in educational institutions, of course, must be carried out by a Principal in several stages, namely: The emerging, implementing, instilling and transforming stages, as well as 4C, namely; critical in thinking and able to produce solutions, communication, collaboration, as well as creative and innovative (Zubaidah & Putra, 2022).

Leadership in the educational context continues to experience shifts, especially in the era of Industrial Revolution 4.0. As a leader who determines policy, the school principal must be able to read current developments, one of which is contemporary developments, one of which is by taking a digital leadership approach (Rasyid et al., 2023) . The digital leadership of school principals is an important key to facing the current era of technological disruption. Digital leadership can be realized if the school principal continues to strive and provide opportunities for all school members to have direct contact with digital technology. The 4C formula (Critical thinking, Creativity, Communication, Collaboration) is also one way to make this happen. Communication, Collaboration) is also one of the keys that needs to be applied in digital leadership in the educational environment.

In order to develop digital leadership capabilities in schools (Sheninger, 2019) offers seven (7) pillars of digital leadership that need to be improved by utilizing technology. These seven pillars are in line with the four pillars of education proclaimed by UNESCO: learning to know, learning to do things, learning to actualize oneself into a complete person, and learning to live together with other people.

The phenomenon of the last 2 years (starting from 2023) is that the recruitment of school principals has been carried out through the teacher mobilization program. One of the requirements for a teacher to be assigned as a school principal is to have a driving teacher certificate. The element of coherence in the Teacher Mobilization Program was an issue that was fought for at the beginning, namely that teacher participation in PGP became an incentive for teachers' future careers. This was realized through the issuance of Ministerial Regulation number 40 of 2021 concerning the assignment of teachers as school principals which requires a driving teacher certificate (Triastuti, 2023).

The main aim of this research is to determine the implementation of digital leadershipin realizing educational transformation. This implementation is studied through the seven pillars of digital leadership in educational institutions, especially at the elementary school (SD) level, especially by school principals who are graduates of driving teacher education. Based on the study above, this research is still worthy of research because the digital capabilities of school principals are very necessary to improve the quality of education.

METHODS

This research adopts a descriptive approach qualitative. In the study this researcher collect descriptive data as much possible for poured in form report And description. The purpose of this research is to determine the implementation of *digital leadership* to improve quality school . This research was carried out in 6 elementary schools led by graduates of the Teacher Mobilization Program (SDN Lamper Lor, SDN Jabungan, SDN Jatibarang 03, SDN Pakintelan 02, SDN Kuningan 03, and SDN Karangroto 04, Semarang City). The research was carried out in May 2024.

The method used to collect data is a descriptive analytical method designed to obtain information about the Implementation of Digital Leadership for increase quality school. Data collection techniques involve field observation, in-depth interviews, and document review. The data obtained (in the form of words and behavior) expressed in the form of an explanation or description of the situation or conditions studied in the form of a narrative description (Arikunto, 1999). Exposure The results are carried out objectively so that researcher subjectivity in making interpretations can be avoided.

RESULTS AND DISCUSSION

In this study, researchers provided informant data which provided sufficient information regarding the implementation of digital leadershipin each selected school. The following is research informant data:

**Table 1.** Informant Data Information

|  |  |
| --- | --- |
| **Information** | **Informant** |
| School Principal | I1 |
| School Principal | I2 |
| School Principal | I3 |
| School Principal | I4 |
| School Principal | I5 |
| School Principal | I6 |

From the information provided by the informants, it appears that several main aspects that are the focus of the problem involve the implementation of digital leadership.

Student engagement, learning, and outcomes

Schools use digital devices in the learning process at school. Frequently used digital devices include laptops and LCD projectors. All schools carry out computer learning in the form of introducing Microsoft Office to students. However, in practice the use of digital devices has not been maximized. The use of digital devices in learning with the guidance of the school principal has an effective influence on improving student learning outcomes. One of the digital tools that has a direct influence is the use of digital teaching media. A good learning process does not make the teacher the only source of learning, it requires various supporting learning sources, as stated in the Standard Principles of the Learning Process according to Minister of Education and Culture Regulation Number 22 of 2016, one of which is from the teacher as the only source of learning to be based on learning. on various learning resources. This is supported by research related to learning using code learning media (digital comics) which has been proven to be suitable for improving learning achievement for theme 6 subtheme 1 in class V students (U. Kurniawati & Koeswanti, 2021). Beside that the use of videos as a learning media in mathematics plays a role in improving students’ motivation in learning, enhancing students’ knowledge and understanding of the lesson and improving the students’ achievements (Lalian, 2019).

Innovative learning spaces and environments

The principal's way of creating an innovative learning space and environment to support learning is by collaborating with all members of the school community. The principal forms project-based learning discussion groups and classroom management. facilitate the tools used. An innovative learning environment can influence the quality of education because it provides comfort for both teachers and students. The learning environment referred to here is not only a physical environment but also a non-physical environment. The physical environment is defined as space for learning, infrastructure that supports information technology, and quality reading materials. The non-physical environment studied is the work culture and academic culture that supports learning activities.

A conducive school climate greatly influences the quality of school community cooperation to achieve the vision. Determination between the learning environment and learning outcomes obtained a correlation/relationship value (R) of 0.520. From the output, a coefficient of determination (R Square) value of 0.271 was obtained, which means that the influence of the independent variable (learning environment) on the dependent variable (learning outcomes) is equal to 27.1%. Thus, it can be concluded that the learning environment has a significant influence on student learning outcomes (Soraya, 2023). Classroom design affords engagement through low-cost learning tools and a flexible, open, student-centered space afforded a variety of active learning strategies. In addition, this case study highlights the importance of conducting assessment on classroom redesign initiatives to justify and improve future classroom spaces (Rands & Gansemer-Topf, 2017).

Professional learning

Development of a Learning Networkto develop human resource competencies in schools by utilizing all existing Human Resources as the school's strengths. The principal and his team form a learning community to develop teacher competency. In self-development activities, school principals and teachers carry out independent training in collaboration with competent resource persons. Learning Networkdevelopment by optimizing the existence of learning communities in schools is very effective. The community, which is supported by good planning and monitoring from the school principal, has helped teachers a lot in responding to various difficulties and problems. In the learning community, teachers will discuss with school colleagues to find the easiest and most effective alternative solutions.

Several self-development activities have also been included in planning the use of BOS funds. The principal together with the teacher determines the material they want to learn from external sources to broaden their knowledge.

KKG as a forum for teacher empowerment needs to be designed and developed as a learning community in which teachers are familiarized and given space to reflect on their learning practices, jointly design, test and evaluate learning solutions. The important thing that needs to be considered in developing KKG as a learning community is a culture of reflective dialogue and active collaboration based on a spirit of togetherness, openness, mutual trust and care. Apart from that, KKG as a learning community needs to involve teachers more in the planning process so that the KKG program is more relevant to teachers' problems and needs (Affandi et al., 2022). Professional Learning Communities (PLC) dimensions (Shared values and vision, shared and supportive leadership, supportive conditions, collective learning and application, and shared personal practice) positively correlate with teacher performance. Interestingly, shared values and vision indirectly influenced performance by mediating the other four dimensions. These findings highlight the importance of well-designed PLCs for teacher development (Mydin et al., 2024).

Communication*​*

The principal communicates with leaders or teachers/employees at the school using polite language. Communication in support of school activities is carried out in meeting forums. The principal and teachers share with each other regardingproblems at school. Some discussions are carried out individually, but others are held in groups according to the context of the problem being discussed. Communication in support of school activities is carried out in meeting forums. The school principal communicates effectively with superiors and the agencies they lead to develop work programs that are pro-student.

There are various ways of communicating. In form, some communication is carried out personally. However, there are also those that are carried out in groups. Personal communication is carried out to resolve personal problems. Group communication is carried out to get solutions that require the opinions of many people.

The tools used to communicate also vary. To speed up the process of conveying information, the school principal uses WhatsApp broadcastso that information can be received quickly. School principals are also connected with other official groups to speed up the receipt and distribution of access to information. The principal's communication in increasing teacher responsibility is interpersonal communication and communication in solving problems in learning by coordinating and finding solutions together (Mesiono & Mawaddah, 2021).

Public Relations

The principal supports the use of social media to increase school transparency. Every school activity is documented, at least via WhatsApp, Instagram, Facebook and TikTok groups. Communication with the community is also carried out through the BOS realization board to recap monthly BOS expenditure and recap school activities. Financial reports are also reported via social media. The school maximizes social media such as the school website, Instagram and YouTube to share information about school activities. It is important to always maintain the relationship between the school and the community. The principal supports the use of social media to increase school transparency. Some social media that are often used are Facebook, Instagram, and TikTok.

Transparency in the use of BOS funds is also a very important part of the school's responsibility to the community. Reports on the use of BOS funds are displayed on transparency boards posted on school walls. The obstacles faced in implementing school-community relationship management programs are lack of creative ideas, lack of budget, limited human resource potential, and evaluation results that are often not followed up. The way to overcome obstacles in implementing the school-community relationship management program is to involve all stakeholders to explore creative ideas, extract funding sources from parents and other parties, help each other in teams, and appoint several personnel as a team tasked with follow-up (NB Kurniawati & Pardimin, 2021). Teacher professional development and pedagogical uses of social media, the larger issues that affect our students and, in turn, the school context are being explored in other disciplines (Dennen et al., 2020).

Building an image (Branding)

School principals use social media to increase public trust in schools. Through the team, the school creates content according to actual conditions. The social media admin always *updates* the school's latest activities and is willing to accept criticism and suggestions. Positive activities and school achievements are uploaded on social media to increase the school's positive image in society. The school's social media development team is an important part of efforts to realize educational transformation. Public and private schools need to build an image to increase public trust in schools. With good *branding*, people will be interested in sending their children to institutions with a good imaging system.

Positive activities and school achievements are uploaded on social media to increase the school's positive image in society. Other activities that can be carried out to improve the image of school institutions are educational institution exhibitions, website and social media content services, as well as virtual (internal) public relations programs and online counseling guidance (Faridah, 2020).

Opportunities*​*

Schools are taking advantage of the connections made through technology and increasing opportunities to make improvements in various areas. All connections are empowered according to their respective fields, the principal uses suggestions and criticism via social media to improve school services. The school principal assists in optimizing existing technology according to the school's potential, so that it runs as planned. School principals use suggestions and criticism via social media to improve school services. Efforts to improve and maintain a positive image are realized by improving the quality of educational services, improving educational service products, and adding other efforts in the form of building communication, implementing discipline, providing direction to alumni so that they always maintain the good name of the alma mater.

The existence of marketing educational services in seeing opportunities is carried out by promoting superior learning programs, positive activities outside of school, and with well-systemized program planning that will succeed in improving and maintaining the school's image (Ma'sum, 2020).

CONCLUSION

The findings of this research show that six schools led by principals from Guru Penggerak Programme graduates have implemented digital leadership as an effort to achieve educational transformation. The achievements that have been made include seven pillars of digital leadership, namely student engagement and learning, student spaces and environment, professional learning and growth, communication, public relations, branding, and opportunity. This research provides contribution importance digital leadership applied in schools base. As unit education that is not own power administration specifically, a principal want to study for control technology information. A number of the way it is done by school principals through digital platforms, learn through community practitioners, and study from YouTube for learn knowledge new education. Challenges in implementing digital leadership involve limited time, lack of innovation, and the need to increase the insight of school principals and teachers regarding the use of digital devices. Schools can create In House Training activities related to digital transformation. The training provided is not only related to the development of teaching media but also educational administration which requires digital skills.

REFERENCES

Affandi, L. H., Candiasa, I. M., Lede, Y. U., Bayangkari, & Prijanto, J. H. (2022). Strategi Peningkatan Kinerja Guru Melalui Pengembangan Kelompok Kerja Guru (KKG) sebagai Komunitas Belajar: Sebuah Analisis Kebijakan. *Jurnal Education and Development Institut Pendidikan Tapanuli Selatan*, *10*(3), 401–407.

Arikunto, S. (1999). *Prosedur Penelitian Suatu Pendekatan Praktis*. Rineka Cipta.

Dennen, V. P., Choi, H., & Word, K. (2020). Social Media, Teenagers, and The School Context: A Scoping Review of Research in Education and Related Fields. *Educational Technology Research and Development*, *68*, 1635–1658.

Faridah, S. (2020). Strategi Hubungan Masyarakat (Humas) dalam meningkatkan Citra Publik lembaga Pendidikan Pada Masa Pandemic Covid-19. *Edusiana: Jurnal Manajemen Dan Pendidikan Islam*, *7*(2), 129–139.

Kurniawati, N. B., & Pardimin. (2021). Manajemen Hubungan Sekolah Dengan Masyarakat Dalam Mewujudkan Mutu Pendidikan Sekolah Dasar. *Media Manajemen Pendidikan*, *3*(3), 470–479.

Kurniawati, U., & Koeswanti, H. D. (2021). Development of Kodig Learning Media to Improve Student Achievement in Elementary School. *Jurnal Basicedu*, *5*(2).

Lalian, O. N. (2019). The effects of using video media in mathematics learning on students’ cognitive and affective aspects. *The 9th International Conference on Global Resource Conservation (ICGRC) and Aji From Ritsumeikan University*.

Ma’sum, T. (2020). Eksistensi Manajemen Pemasaran dalam Membangun Citra Lembaga Pendidikan. *Jurnal Intelektual: Jurnal Pendidikan Dan Studi Keislaman*, *10*(2).

Mesiono, & Mawaddah, R. (2021). Komunikasi Kepala Sekolah Dalam Meningkatkan Kinerja Guru Di Mis Bidayatul Hidayah Makmur Kabupaten Deli Serdang. *Journal Ability: Journal of Education and Social Analysis*, *2*(3), 1–9.

Mydin, A.-A., Xia, Y., Long, Y., & Education, T. and T. (2024). Professional learning communities and their impact on teacher performance: Empirical evidence from public primary schools in Guiyang. *Teaching and Teacher Education*, *148*.

Rands, M. L., & Gansemer-Topf, A. M. (2017). The Room Itself Is Active: How Classroom Design Impacts Student Engagement. *Journal of Learning Spaces*, *6*(1), 26–33.

Rasyid, M., Lesmana, I., Safitri, H. D. A., Meirani, R. K., & Prestiadi, D. (2023). Digital Leadership in the Scope of Education. *ICEMT*, 52–61.

Sheninger, E. (2019). Digital Leadership: Changing Paradigms for Changing Times. *INTED2019 Proceedings*, 10029–10029.

Soraya, S. (2023). The Influence of The Environment on The Learning Outcomes of Islamic Religious Education. *Jurnal Tahdzib Al Akhlaq*, *6*(1).

Triastuti, U. H. (2023). Program Pendidikan Guru Penggerak, Efektifkah?: Sebuah Ulasan pada Kerangka Pengembangan Profesional Guru. *Jurnal Widyaiswara Indonesia*, *4*(2), 17–26.

Zubaidah, & Putra, R. S. (2022). Model Kepemimpinan Digital Kepala Sekolah di Era Teknologi. *Jurnal Mudarrisuna*, *12*(4).