

Creating Digital Literature through Transformational Leadership; Challenges and Solutions

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Abstract:

This study aims to analyze and understand the principal's transformational leadership in realizing digital literacy. This study uses a qualitative approach to the type of phenomenology. Data collection techniques were carried out through interviews, observation, and documentation. Data analysis was carried out through several stages: data reduction, data presentation, and conclusion drawing or verification. The results showed that; transformational leadership strategy in increasing digital literacy by holding mini workshops and digital literacy examples. The challenges and solutions in transformational leadership are that teachers are still technology literate and not wholeheartedly in studying digitalization and inadequate internet access. This research has implications for the importance of designing educational institutions oriented toward developing digital literacy in responding to the challenges and demands of the times.

Keywords: *Transformative Leadership, Digital Literacy, Challenges, Solutions*

Abstrak:

Penelitian ini bertujuan untuk menganalisis dan memahami tentang kepemimpinan transformasional kepala sekolah dalam mewujudkan literasi digital. Penelitian ini menggunakan pendekatan kualitatif jenis fenomenologi. Teknik pengumpulan data dilakukan melalui wawancara, observasi dan dokumentasi. Analisis data dilakukan melalui beberapa tahapan, yaitu; reduksi data, penyajian data, dan penarikan kesimpulan atau verifikasi. Hasil penelitian menunjukkan bahwa; strategi kepemimpinan transformasional dalam meningkatkan literasi digital dengan mengadakan kegiatan Workshop mini dan teladan literasi digital. Tantangan dan solusi dalam kepemimpinan transformasional adalah guru masih melek teknologi dan belum sepenuh hati dalam mempelajari digitalisasi serta akses internet kurang memadai. Penelitian ini memberikan implikasi tentang pentingnya desain lembaga

pendidikan yang berorientasi pada pengembangan literasi digital dalam menjawab tantangan dan tuntutan zaman.

Kata Kunci: *Kepemimpinan Transformatif, Literasi digital, Tantangan, Solusi*

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INTRODUCTION

Due to fast change and the growing need to influence the educational process, educational institutions are compelled to become more dynamic. Educational institutions are among the most effective organizational systems whose principal inputs and outputs are "humans." Kalkan et al., (2020) said that the school is structured to address the demands of the 21st century's information era and to find, select, and educate individuals with leadership potential. The school administrator is a fundamental component of this organization. Utilizing educational institutions' people and material resources and ensuring their continued existence is contingent upon an efficient management style, a robust cultural fabric, and strategic leadership adaptable to shifting global situations.

Technology and information advancements are one of the indicators of globalization that indicate the onset of the fourth industrial revolution. The fast growth of technology and information has increased human contact and altered many aspects of human existence. In the period of the 4.0 industrial revolution, one of the dominant global themes is the fast development of the digital revolution. The existence of technology and digital information has significantly altered people's lifestyles. Digital technology offers a variety of advantages, ranging from the ease of communication and buying through online applications to the rapid access to information that makes life more practical (Yufita & Sihotang, 2020).

According to Ruloff et al. (2022), advances in technology and information are one of the indicators of globalization that guide the international community into the era of the fourth industrial revolution. Not only has the rapid development of technology and information increased human interaction, but it has also disrupted many aspects of human life. The rapid development of the digital revolution is one of the global trends that have emerged in the fourth industrial revolution era. The presence of technology and digital information has radically altered how people live. Digital technology offers a variety of conveniences, including facilitated communication and shopping via online applications, as well as access to information so quickly that it makes life more convenient (Franciosi, 2012).

Thus, school leaders are expected to clarify the underlying goals prior to other implementation steps, such as adapting the curriculum, convincing and empowering teachers to adapt their teaching, and providing the necessary support, professional development opportunities, and infrastructure so that technology becomes a meaningful tool (Ruloff et al., 2022). Alamsyah (2021) said that the educational process is a never-ending circle, as was underlined,

especially in science. If a child completes a K-12 program, a Bachelor's degree, a Master's degree, and a Doctorate, this indicates that he or she will make a significant contribution to the education cycle, where science and culture of progress create an excellent continuum. Therefore, the government must prioritize data-driven decisions, which can only be accomplished via the application of the principles of evidence-based leadership. Kalkan et al. (2020) argue that leadership is one of the most researched ideas based on its features in the historical process, its constituent aspects, and its conceptual dimensions. Leadership is the capacity to assemble a group of individuals for a specific purpose in order to accomplish organizational goals and objectives.

The fast growth of digital technology has led to an increase in the public's transmission of information via electronic devices while utilizing digital books (E-books). Ministry of Education and Culture stated that to expose individuals to multiliterate energy, capacity building for digital literacy advocates is a mere explosion (Rahmawaty, 2021). In addition to being a leader in the school environment, the principal should also be able to position himself as a participant in the ongoing educational transformation. Amid global rivalry and the fast growth of information technology, it is predicted that the support and role of education in schools will boost the power of learning innovation. According to Tohir and Ibrahimy (2020), the Indonesian reading category was rated sixth with an average score of 377 in the 2018 PISA survey, a drop from the previous year. This phenomenon demonstrates that a lack of insight and understanding will drive a person closer to poverty.

Additionally, the principal will desire an excellent education. The principal must also pay attention to the institution's human resources (HR). Improving the quality of education is a development objective in the field of national education and an essential aspect of efforts to enhance the quality of the Indonesian people as a whole in the framework of the Indonesian country (Jannah, 2020). Transformational leadership has a beneficial and substantial impact on work, such as discipline. High work discipline is determined by one's leadership style, which is transformative (Elfranita et al., 2021). To enhance the innovative capabilities of organizations, transformational leaders, according to Birasnav et al. (2013), should empower employees by providing autonomy in determining work activities, fostering organizational learning, and bolstering self-confidence by helping them realize their potential, communicating the organization's attainable mission and vision to employees, and working collaboratively with employees to identify their needs. In addition, according to Chen et al. (2018), substantial evidence has shown that transformational leaders influence the expression of subordinates' emotions, attitudes, and behavior.

Based on the fact that teachers at SDN 34 Sebelitak Sambas have used web-based learning material, there are still some teachers who cannot use online learning due to their hectic schedules such; Educational administration and teaching responsibilities result in a lack of self-development awareness among teachers. Teachers still lack the self-awareness necessary for self-improvement. Still requiring direction from school administrators or relevant education authorities is the empowerment of teachers. The assignment of

teacher empowerment to participate in training activities or seminars offered by the principal is occasionally carried out half-heartedly. In the era of digitization, the institution's transformation of the principal's leadership is distinctive in delivering a mentorship program approach. This study aims to examine the transformational leadership approach of digital literacy principals in schools, as well as the problems and solutions of transformational principle leadership in achieving digital literacy for teachers. Overall, this research will not only contribute to the expansion of theoretical knowledge but will also have practical implications for management beyond typical linear correlations.

RESEARCH METHODS

This article uses qualitative research with a phenomenological methodology to investigate the phenomena of changes in the world of education, therefore including school principals in adapting to the changing needs of the world of education during the 4.0 industrial revolution. The primary data sources for this study consisted of three individuals: two informants who were teachers in grades four and five and the principal of the 34 Sebelitak Sambas Public School in Pontianak. In contrast, secondary data sources include books, scholarly journals, periodicals, and the Internet. Observation, interviews, and documentation constitute the data collecting methodology. All facts about the principal's leadership were compiled and descriptively assessed. According to Miles and Huberman, qualitative analytical operations include data reduction, data presentation, and generating conclusions or verifying. During and following data collection, data analysis was conducted simultaneously. Researchers can derive study conclusions based on qualitative analysis and available data connected to the transformational leadership of school principals in addressing digital literacy, solutions, and difficulties.

FINDINGS AND DISCUSSION

Principal's Digital Literacy Transformational Leadership Strategy in The School

According to Asmawan (2018), Responding to the existence of the school's role in the implementation of the digital literacy movement in schools demonstrates that the school as a formal education organization is a place or forum for the collaboration of a group of individuals (principals, teachers, staff, students, school committees, and the community) in order to achieve the desired goals. To attain this objective, coordination amongst school environment components is required. A leader must operate by the vision and mission of this partnership. In this context, leadership is the action of persuading others to follow or follow him (according to his intentions), whereas managers focus solely on systems and procedures or corporate goals without regard for individuals.

Based on the results of an interview with the principal of the Safuad school, it was determined that "the efforts that are always made in familiarizing my teachers with the use of technology (digital literacy) always provide an example in becoming accustomed to using internet access whenever there is a

meeting with the teacher council" about internet access. Other teachers will use digital access to enhance student learning if there is an example of digital literacy. Teachers must acquire digital media competency as one of their pedagogical abilities. Teachers must effectively integrate communication and information technologies into the learning process.

In addition, the principal, Safuad, stated that "the capacity to develop significant and unique material and its interpretation is essential for teachers in schools to transmit messages clearly and properly." Asadi remarked that "digital literacy assists him in acquiring knowledge that will serve as the basis for decision-making in the global digital transformation process in schools."

Based on the results of the research above, the Digital Education Action Plan 2021-2027 (Luić & Švelec-Juričić, 2021) at The European Commission emphasizes digital literacy as one of the main principles very important for life in the digital world, stressing the importance of education about digital technologies needed to promote healthy, safe and meaningful use of digital tools and resources and critical evaluation of information.

Principals have the leading role in making decisions to improve school education quality. Rahmawaty (2021) stated that school leadership is one of the components of the driving force and determining factor of policy direction, and it plays a crucial role in achieving excellent education in schools. The leadership of a principal who can influence the school community and effectively manage a school will generate a superior school since its leadership may determine its excellence. With the expansion of the notion of enhancing students' digital literacy, it will become an integral part of school culture.

The principal's transformative leadership strategy in digital literacy is needed in strategic management, human resource management, and management in general. Leadership style, according to Paul et al. (2020), is a leader's ability to determine management's ability to initiate collaborative efforts among team members. Transformational leadership can earn people's trust and enable collaboration among team members. Arrasyid (2021) said that the transformational leadership position of the principal supports the development and change via shared vision, mission, and goals, fostering the growth of initiative, creativity, and innovation to find novel solutions to old issues. Cultivating self-confidence, compassion, and appreciation for contributions, being trustworthy and sympathetic, and satisfying the requirements of all school components. Carry out responsibilities for the common good, inspire their subordinates to go above and beyond, and promote collaboration between schools, parents, and the community.

Thus, the implications for the school setting and school leaders about the role of technology integration in the teaching and learning process are crucial since it emphasizes the significance of a long-term view and the social dimensions of digital literacy. Digital literacy is tied to critical thinking, and we must recognize it as an essential life skill in circumstances where the digital world is expanding its influence (Bastos & Oliveira, 2015).

The opinion above is based on the research findings of the principal providing an understanding of teachers in digital literacy by conducting mini-

workshops on the use of digital E-Book applications for textbooks for teachers at SDN 34 Sebelitak, as shown in Figure 1. Digital Literacy Training was held at SDN 34 Sebelitak Sambas, Pontianak, from 08.30–12.00 WIB (Western Indonesia Time). The training was conducted for five hours, according to the targeted time.



Figure 1: Principal is Explaining Digital Literacy Workshop

Transformational leadership influences teachers' impressions of school circumstances, their commitment to change, and organizational learning, highlighting advances in educational procedures and student results, among other things. Simultaneously, it is a significant factor in large-scale reform and innovation (Bastos & Oliveira, 2015). Santoso et al. (2019) argue that transformational leadership styles may give employees relevant feedback, encourage them to put up more significant effort to find new answers, and boost their innate drive to think creatively.

Transformational leadership may be advantageous because transformational leaders infuse everything with excitement and good energy. With transformational leadership, it is believed that the leader would become a role model, stir members' passion, and motivate them to attain the organization's desired goals (Hendrawati & Prasojo, 2015).

Table 1: Transformational Leadership Strategy at SDN 34 Sebelitak

No	Transformational Leadership Strategy	Result
1	Collaborating with teachers in creating a Digital Literacy program	A mini Workshop program on the use of digital E-Book applications
2	Communicating externally with stakeholders	Building cooperation in the construction of physical school facilities and infrastructure
3	Assisting teachers in digital teacher administration	Learning digital procurement

Principal Transformational Leadership Challenges and Solutions in realizing Digital literacy for Teachers in Schools

In the contemporary digital era, education in schools faces a severe challenge: if schools cannot be dynamic and adaptable, the school organization will be destroyed by the times. Rahmawaty (2021) said that the learning paradigm is currently undergoing a shift from traditional education with limited opportunities, and this is beginning to be modeled into the most recent learning process as a process of self-determination, self-actualization, and self-directing in which students focus on learning without being limited by time,

source of content, space, and place. The current digital tidal wave provides technology as a means of communication and a learning tool to make life easier for students. Students rely solely on internet networks, cellphones, and laptops to effortlessly access e-book content today.

Asadi, one of the sixth-grade teachers, stated, "the worry we experience as teachers of mastery of online science and technology, especially when there are so many applications available, often makes learning too sluggish to use; this may also be due to the increasing age issue."

In addition, Wintari said that 'the constraints of internet connection such as challenging signals, updating information is too strict, let alone requesting rapid information, and our school's location in a border region with limited signal coverage. Transformational leadership is exemplified by having a clear plan, demonstrating concern, inspiring team members, preserving team cohesion, and accepting individual diversity and opinions. The leadership required for change consists of effectively conveying the vision. The transformation leader must clearly and openly communicate the organization's goal and persuade every organization member that working towards attaining the vision will result in success. In communicating the vision, the benefits that will be obtained for the organization and individuals should be explained, such as the organization's ability to face competition so that it becomes a leading organization, creates a conducive work environment, and improves employee welfare and job satisfaction. Transformation leaders must communicate the truth and are not permitted to claim to know all the problems and have answers to all queries concerning the vision's methods (Pratiwi, 2022).

According to the study, the instructor's content delivery is less engaging, and she does not comprehend the material being delivered. Students embrace the use of information and communication technology (ICT) in the learning process with great zeal. However, students do not comprehend the meaning of the material transmitted; they prefer to watch videos and view images without comprehending the material's content until the class teacher explains it again (Ningsih et al., 2020).

Transformational leadership stresses that leaders can first influence and transform others around them (Sandiasa, 2017). A leader has inner charm and affects others. For this reason, the teacher's involvement in overcoming the many hurdles encountered, whether providing content online, offline or hybrid, is crucial. Teachers should collect information from students and parents on the distance from home, ownership of mobile phones, internet networks, and internet packages, as well as the parent's ability and opportunity to assist their children in learning activities (Satariyah, 2020).

Based on in-depth interviews with several teachers at the SDN 34 Sebelitak school regarding knowledge of the official website of the Ministry of Education and Culture (Kemdikbud), the National Library of the Republic of Indonesia (PNRI), and the National Education Standards Agency (BSNP) it was found that the teachers were aware of the institution, would but have never

visited the site. This condition is not ideal because these sites provide various learning resources, documents, e-books, and other e-resources to improve their competence. In general, individuals perform searches using search engines, one of which is Google. This is not wrong, but it is not effective and efficient because the information found is very much and some of it does not match the needs. One by one, sorting out the required information will take much time and can lead to boredom and even despair.

This is a solution to the significance of digital literacy, one of the references for information literacy competence standards given by The Association of College and Research Libraries (ACRL), an academic and research librarian association. Through participation in ACRL, each member can access various advantages that enhance librarians' experience and knowledge. ACRL has established competency criteria for information literacy (Kurnianingsih & Ismayati, 2017), such as; a) being able to determine the nature and magnitude of the need for information; b) being able to access the required information effectively and efficiently; c) able to critically evaluate information and its sources and incorporate the selected information into knowledge and value systems; d) able to use information effectively to achieve specific goals; e) able to understand issues in the economic, legal, social, and around the use of information and access and use information ethically and legally.

Participation from students, instructors, and education professionals, as well as parents, are required to implement several types of digital literacy in schools. Digital literacy is achieved through showing digital literacy behaviors and incorporating them into the school's curriculum and culture. Digital literacy may also be included in school teaching and learning activities so that it becomes an integral element of all student and teacher activities, inside and outside the classroom. Regarding digital literacy, teachers and education staff have a moral duty as role models. To increase its reach, the digital literacy program includes public engagement from digital literacy campaigners, parents, and community leaders (Suriani & Hadi, 2022).

The advancement of technology facilitates multimedia composition. Some websites give customized templates so that the user, in this example, the teacher, only needs to drag or upload an image to create multimedia ready for use. Teachers may also utilize various applications to create multimedia. For instance, Adobe Flash is relatively simple to produce animated multimedia, such as multimedia development for theme learning in the 2013 Curriculum (Diputra et al., 2020). According to Anggeraini et al. (2019), a teacher trainer must have the ability to; 1) decide what types of digital tools are appropriate for their course content and be able to present their courses online; 2) determine what types of digital tools and work methods support, develop or improve course quality; 3) realize costs with different digital examinations best examination according to objectives and guidelines; and 4) clarify and highlight teaching and learning issues, for students, according to selected digital tools and methods.

CONCLUSION

Principal leadership in confronting the era of globalization with the rapid rise of teacher innovation and creativity in digital literacy has consequences for enhancing the quality of schools. The principal's leadership style is transformative in conjunction with 21st-century changes. The program approach of the digital literacy movement was able to modify teachers' perceptions that it is not required to visit a traditional library to access information, learning tools, and publications, saving them considerable time. This exercise successfully enhanced instructors' abilities to create technology-based learning materials, which were previously seen as difficult to create and required expertise in the computer area. The instructor has demonstrated proficiency in compiling, conducting CAR, producing papers, and submitting manuscripts to journals. Even though two selected teachers carried out this exercise, it assessed the skills of all partners since the whole process, from implementation to publishing, involved talks with teachers from each school.

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