

THE EFFECTIVE LEADERSHIP STYLE FOR DIGITAL LEARNER: A SYSTEMATIC LITERATUR REVIEW

Enricho Fiktorando Purba^{1*}

¹Universitas Negeri Medan, Medan, Indonesia
email: enrichopsdm@gmail.com

Abstract: This paper reviews systematically literature on effective school leadership style in the context of digital learners from 2019 to 2023 in Indonesia. Its purpose is to investigate the effective leadership style applied by school leaders including teachers and the factors impacting it. Eight journals were used as the source of the literature. In addition, most of the journals are indexed by Scopus and Social Sciences Citation Index. The literature search yielded 10 articles that were reviewed. This study reports the dominant leadership style applied in the world context is the transformational style integrated with technology. Meanwhile, there is no specific dominant leadership style applied in Indonesia. It depends on whether urban or rural area. However, the study concludes that the leadership in rural area tend to apply trait and behavioral approach. In contrast, urban areas tend to apply technology skills and knowledge approaches. The factors contributing to school effectiveness are leaders' actions and deeds, values, good attitude, technology and knowledge skills, and communication skills. Additionally, a good school culture and governance. Contributions for theory, practices, and further study are provided.

Keywords: digital learner; effective leadership; leadership style; systematic literature review

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INTRODUCTION

Leadership is one of the main factors in implementing effective school management. Recent studies reveal that leadership improve the quality of school in terms of technology, school culture, information systems, and organizations (Sunaengsih, Anggarani, Amalia, Nurfatmala, & Naelin, 2019). Afandi et al., (2021) found that leadership will establish school capacity in improving teachers' quality, constituting effective learning, and improving the students' learning process. Moreover, leadership even increased the achievement and satisfaction of school administrators (Luecha, Chantarasombat, & Sirisuthi, 2022).

However, rapid change in digital technology also bring challenge in leadership. School leaders including teachers face various challenges in such as teachers' skill technology in developing teaching and learning material (Zhang, Cheah, & Adams, 2022). In addition, digital technology expose challenge to facilitation and the academic-employer interface, impacting upon learning communities and knowledge exchange opportunities (Rowe,

Knight, Irvine, & Greenwood, 2023). Nevertheless, another study by Gorina et al., (2023) represents the abundant resource for teachers looking for strategies, examples, and practical recommendations to deal with the challenges of teaching and lecturing in a digital and globalized age that might improve the professional teaching practices for fostering sustainable education and sustainable economic development.

In the other hand, technology change the role of school leadership, teaching approaches, and school innovation especially in the industrial era 4.0 due to advanced technology such as Artificial Intelligence and the internet. Therefore, the school leader need to upgrade the technological leadership. The study proved that principals' technology leadership effect the teacher's technology integration (A'mar & Eleyan, 2022), teachers' performance on vocational school (Sunaryo, Yusnita, Herfina, Wulandari, & Suhendra, 2023) and teachers' digital teaching and even students' academic achievement (Hafiza Hamzah, Khalid, & Wahab, 2021; Pramono, Wijaya, Melati, Sahudin, & Abdullah, 2021)

Since research in leadership in digital transformation is classified in to a new and current issue especially post-pandemic *Covid-19*, there is few research about this. Therefore, it is one of the gap in this research.

Based on the phenomena and research gap this study aim to investigate the preferred effective leadership style and the component(s) within in the context of digital transformation by raising these research questions: what are the effective leadership styles used by the school leader in digital era and what are the components or factors impacting the effectiveness of implemented leadership styles?

This study contributes toward both the current theory and practice of school leadership as well as providing a basis for future research. This review contributes significantly to solving the limited number of studies on school leadership in the digital era. Practically, this study contributes significantly to improving the awareness and knowledge of school leaders including teachers or faculties as the leader in the classroom. This paper is focused on reviewing systematically some of the main issues and provides some information that might be useful to be implemented. However, it is crucial that other investigators continue with more in-depth research based on the results of this study.

METHOD

Systematic reviews are conducted to comprehend a specific topic or to explore new research and practices for improvement. The methods of Daldrup-Link (2018) adopted from Lumban Gaol (2021) were used with a minor modification in this study to merely determine the number of articles.

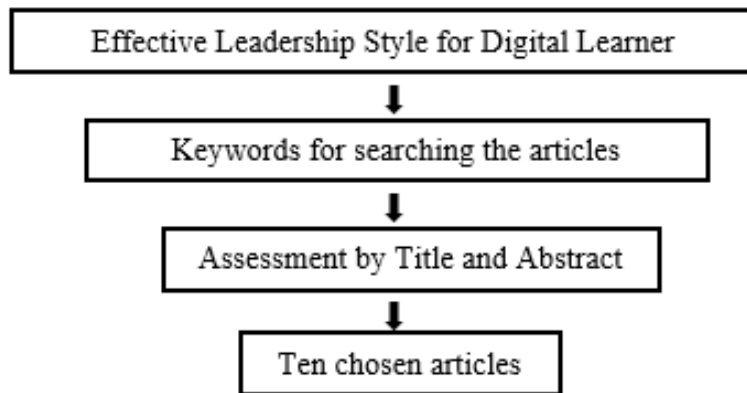


Image 1. Process for searching and selection the articles

The literature search began with using tools Publish and Perish to search the article from Crossref data base. Other data bases is also used to search the relevant and high reputation journal articles such as ERIC (Education Resources Information Center) and Scopus to.

A systematic search of documentary databases was conducted from the nine selected journals by using the following steps: First, a search was conducted using the keywords: ‘School effective leadership AND Digital Era’; ‘School Leadership AND digital age’; ‘Successful Leadership AND Digital Learning’; ‘Effective School Leadership AND Digital Learner’. Second, the articles found in the search were analyzed for content based on the inclusion and exclusion criteria. The inclusion criteria used to select articles were: (a) empirical, review and commentary articles – ‘those kinds of articles are also essential to develop of a mature knowledge base published from 2019 to 2023; and (c) relevant to effective school leadership in Indonesia. The exclusion criteria followed the suggestion. Woods et al. (2006) that ‘only papers that were deemed to be fatally flawed would be excluded’. This means that any article was excluded from the study if it was not published in one of the nine selected journals, if it was deemed irrelevant, or if it was out of the determined date range. All abstracts and titles of the selected articles were collected and put in a file.

The search and selection process yielded 49 articles, consisting of 10 research articles,. These articles are shown in Table 1. For each paper, all information about the authors, the year of publication, methodology, relevant findings, discussion and conclusions was extracted in a coded spreadsheet. Relevant findings were then coded on the basis of the framework presented in the next section. Because of the small number of articles, there was no need to use software to code, evaluate or analyze the findings. The evaluation data that was used was based on the inclusion and exclusion criteria as described above.

RESULT AND DISCUSSION

The findings are shown in this table 1 which consist of several countries from three continents namely Asia, America and Europe.

Table 1. Findings of leadership styles

Name of Journal	Author	Country	Title	Applied Leadership Style
Mimbar Sekolah Dasar	Sunaengsih et al. (2019)	Indonesia	Principal Leadership in the Implementation of Effective School Management	Principal Leadership
Eurasian Journal of Educational Research	Juharyanto, et al.(2021)	Indonesia	Dominance One-Roof Schools Principal Excellent Leadership in the Digital Age in Indonesia	Spiritual leadership, <i>followed by</i> transformational, Instructional, and entrepreneurial leadership
Eurasian Journal of Educational Research	Gultom, Baharuddin, & Fibriasari (2021)	Indonesia	Leadership styles and school performance: A study examining factors contributing to education success in Medan, Indonesia	Situational Leadership
International Journal of Leadership in Education	Baroudi (2022)	Saudi Arabia	Leading in times of crisis: evidence of digital transformational leadership among Arab female educational leaders	Democratic and transformational
International Journal of Asian Business and Information Management	Ghavifekr & Wong (2022)	Malaysia	Technology leadership in Malaysian schools: The way forward to education 4.0 – ICT utilization and digital transformation	Technology leadership
International Journal of E-Learning & Distance Education	Robertson & Sivia (2022)	North America	Online but Not Alone : Teachers ' Perceptions of Effective Online School Leadership (OSL)	Online School Leadership (OSL)
Education and Information Technologies	Ghamrawi & Tamim (2022)	Saudi Arabia	A typology for digital leadership in higher education: the case of a	Digital Leadership

			large-scale mobile technology initiative (using tablets)	
Scandinavian Journal of Educational Research	Lien, Khan, & Eid (2023)	Norway	School Principals' Experiences and Learning from the Covid-19 Pandemic in Norway	Digital transformative Leadership
Cogent Education	Werang, et.al (2023)	Indonesia	Exploring the outside-the-box leadership of an Indonesian school principal: A qualitative case study	Outside-the-box leadership (openness, humanitarian, risk-taker)
Computers and Education	Schmitz et al. (2023)	Switzerland	Transformational leadership for technology integration in schools: Empowering teachers to use technology in a more demanding way	Transformational Leadership

The dominant applied leadership style in the world context especially in Saudi Arabia, Malaysia, North America, Norway and Switzerland is transformational leadership style which is integrated with technological knowledge and skill. In addition, there is a new terminology such as digital leadership and digital transformative leadership style approach in Norway and Saudi Arabia.

Table 1 shows that there are four leadership styles applied in the context of Indonesia. There is none dominant leadership style applied by school leaders in digital era. The effective leadership style is depend on the area context whether urban or rural area which have a big differences.

To answer the second question research, the researcher review and analyze each findings in every single selected article. The findings is shown in table 2.

Table 2. The factors affecting toward school effectiveness

Applied Leadership Style	Factor affecting toward School Effectiveness	Area Context
Principal Leadership	<i>Technology skill and knowledge Existing routine school culture (e.g. Dhuha Prayer, reading and cleaning activities) Developed school information system Maintained School organization</i>	Urban
Spiritual	<i>Spiritual values shown by the leaders Leaders' attitudes and behaviors</i>	Rural

	<i>Leaders' actions and deeds</i>	
Situational	<i>Good communication leaders style</i> <i>Good school governance</i>	Urban
Outside-the-box	<i>deep respect for the individual dignity of subordinates</i> <i>effective communication</i> <i>Openness to diversity, new idea, new technology</i> <i>Willingness to take a risk</i>	Rural

CONCLUSION

Based on the findings in the table 1, in the world context, the dominant leadership style applied by the school leaders in digital era is transformational leadership integrated with technology skill and knowledge. Meanwhile, there are four leadership styles applied in the context of Indonesia. There is no specific leadership style applied by school leaders in digital era. The applied leadership style depends on the area context whether rural or urban area.

In terms of the factors affecting towards the school effectiveness, this study reveals several factors that contributing to the school effectiveness such as technology skill and knowledge, existing routine school culture, developed school information system, maintained school organization, good communication in an urban area. Meanwhile, it has a different factors. They are spiritual values shown by the leaders, leaders' attitudes and behaviors, leaders' actions and deeds, deep respect for the individual dignity of subordinates, effective communication, and openness to diversity, new idea, new technology, and willingness to take a risk.

This study covers a limited area in Indonesia. Therefore, the researcher suggest that this study need for further research in order to cover more areas in Indonesia in terms of applied leadership style and factors affecting the school effectiveness.

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