

Digital Transformation: The Urgency of Visionary Leadership Enhancement Training at Yayasan Miftahul Huda Suwayuwo, Pasuruan Regency

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Keywords

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Abstract

Digital transformation demands educational institutions to adapt quickly, including Yayasan Miftahul Huda Suwayuwo in Pasuruan Regency. A visionary leadership enhancement training was conducted in July 2024 to equip school principals and teachers with digital leadership skills and competencies in utilizing AI technologies such as ChatGPT, Copilot, and Leonardo. The training included material presentations, hands-on practice, and evaluation through pretest and post-test. Statistical analysis results showed a significant improvement in participants' scores, with the post-test average reaching 84.75 compared to the pretest average of 38.47. Statistical tests confirmed that this difference was highly significant ($t = -37.265$, $p < 0.001$). The training successfully enhanced participants' competencies in visionary leadership and the use of digital technology, while also raising awareness of the importance of digital transformation in education. To ensure sustainability, it is recommended that the foundation organize regular training, establish learning communities, and provide post-training mentoring.

1. Introduction

In the era of globalization marked by rapid technological advancements, digital transformation has become an inevitable necessity for various sectors, including non-profit organizations such as foundations. Yayasan Miftahul Huda Suwayuwo in Pasuruan Regency, as an institution operating in the field of education, cannot escape the demand to adapt to this change. Digital transformation is not merely about adopting new technologies but also requires a paradigm shift in leadership and organizational management. According to Kotter (2012), visionary leadership is the key to addressing complex and dynamic changes, especially in the context of digital transformation. Without leaders who can look ahead and inspire change, organizations risk falling behind in global competition.

Training to enhance visionary leadership is an urgency that cannot be ignored by Yayasan Miftahul Huda Suwayuwo. As highlighted by Goleman, Boyatzis and McKee (2013), effective leadership in the digital era requires the ability to motivate, inspire, and build a culture of innovation within organizations. In the context of this foundation, visionary leadership aims not only to improve operational efficiency but also to strengthen the foundation's role in developing Human Resources (HR), particularly teachers and students, through educational programs that are relevant to the needs of the times.

Furthermore, recent research by McKinsey & Company (2024) shows that organizations that succeed in digital transformation are those with leaders who have a clear vision and the ability to manage change systematically. Therefore, visionary leadership training for the principals and teachers of Yayasan Miftahul Huda Suwayuwo is a strategic step to ensure that the foundation is not only able to survive but also thrive in facing the challenges of the digital era. Through a holistic and sustainable approach, this foundation can maximize the potential of technology to achieve its educational goals more effectively.

2. Methods

The visionary leadership enhancement training was conducted offline in July 2024 at Yayasan Miftahul Huda Suwayuwo, Pasuruan Regency. This training was designed to provide in-depth understanding and practical skills for school principals and teachers in facing the challenges of the digital era. Before the training began, the training team administered a pretest to participants to measure their initial knowledge and skills in visionary leadership and the use of digital technology in education. This pretest served as important baseline data to evaluate the effectiveness of the training.

The training agenda was divided into two main sessions. The first session began with a presentation on digital learning leadership skills for school principals and digital competencies for

teachers. This material was designed to encourage the development of student competencies relevant to the demands of the 21st century, as emphasized by Fullan (2013) in his book *Stratosphere: Integrating Technology, Pedagogy, and Change Knowledge*, which states that the integration of technology in education requires transformative leadership and digitally competent teachers.

The second session focused on the practical application of visionary leadership through the use of artificial intelligence (AI) tools such as ChatGPT, Copilot, and Leonardo. Participants were guided on how to effectively use these tools, including techniques for providing clear and structured prompts to generate optimal outputs. This practical approach aligns with the recommendations from recent research by Chui *et al.*, (2022) in the article *The State of AI in 2022*, published by McKinsey & Company, which highlights the importance of AI literacy for leaders and educators to maximize the potential of this technology.

After the training, the training team administered a post-test to participants to measure whether there was an improvement in their skills and knowledge. The comparison between the pretest and post-test results served as an indicator of the training's success in achieving its objectives. The participants, consisting of school principals and teachers, were expected not only to understand the theory of visionary leadership but also to be able to implement it in the context of teaching and school management. In conclusion, this training is expected to be an initial step in building an adaptive and innovative educational ecosystem at Yayasan Miftahul Huda Suwayuwo.

3. Result and Discussion

The visionary leadership enhancement training conducted at Yayasan Miftahul Huda Suwayuwo, Pasuruan Regency, in July 2024, ran smoothly and effectively. This training not only included the measurement of participants' knowledge and skills through pretest and post-test but also featured material presentations and practical sessions designed to provide in-depth understanding and applicable skills to participants. In the initial session, participants, consisting of school principals and teachers, were presented with material on digital learning leadership skills for principals and digital competencies for teachers. This material was delivered using an interactive approach, enabling participants to understand the importance of technology integration in education and the role of visionary leadership in driving innovation in schools.

Following the material presentation, the training continued with a practical session focused on utilizing artificial intelligence (AI) tools such as ChatGPT, Copilot, and Leonardo. Participants were invited to directly try using these tools, including learning techniques for providing clear and structured prompts to generate optimal outputs. This practical session not only enhanced participants' theoretical understanding but also built their confidence in using AI technology to support teaching and school management processes.

Based on data analysis using SPSS, the results of the difference test between pretest and post-test showed a significant improvement in participants' knowledge and skills. From the Group Statistics, as shown in Table 1, it can be seen that the average pretest score was 38.47 with a standard deviation of 7.245, while the average post-test score increased significantly to 84.75 with a standard deviation of 2.812. This indicates that participants experienced a substantial improvement in understanding and skills after participating in the training.

Table 1 Group Statistics

Group Statistics					
	Group	N	Mean	Std. Deviation	Std. Error Mean
Tst Result	Pre-Test	36	38.47	7.245	1.207
	Post-Test	36	84.75	2.812	.469

The Independent Samples Test, as shown in Table 2, with Levene's Test yielded an F value of 17.844 and a significance of 0.000, indicating that the variances between the pretest and post-test groups were not equal (equal variances not assumed). The t-test results showed a t value of -35.730 with degrees of freedom (df) of 45.312 and a 2-tailed significance of 0.000. This means there was a highly significant difference between the pretest and post-test results. The mean difference between

the two groups was -46.278, with a 95% confidence interval ranging from -48.886 to -43.670. These results reinforce the finding that the training had a substantial positive impact on the participants.

Table 2 Independent Samples Test

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Test Result	Equal variances assumed	17.844	.000	-35.730	70	.000	-46.278	1.295	-48.861	-43.695
	Equal variances not assumed			-45.312	35.730	.000	-46.278	1.295	-48.886	-43.670

Furthermore, the Paired Samples Statistics in Table 3 reaffirm that the average post-test score (84.75) was significantly higher than the pretest score (38.47). The correlation between the pretest and post-test (Paired Samples Correlations) showed a correlation value of 0.120 with a significance of 0.487, indicating that there was no strong linear relationship between the participants' initial and final scores. This can be interpreted to mean that the improvement observed was influenced by the training intervention, rather than by the participants' initial capabilities.

Table 3 Paired Samples Statistics

		Paired Samples Statistics			
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre Test	38.47	36	7.245	1.207
	Post Test	84.75	36	2.812	.469

In the Paired Samples Test shown in Table 4, the mean difference between the pretest and post-test was -46.278, with a standard deviation of 7.451 and a standard error mean of 1.242. The 95% confidence interval for this difference ranged from -48.799 to -43.757. The t-value of -37.265, with 35 degrees of freedom and a 2-tailed significance of 0.000, indicates that the difference between the pretest and post-test is highly statistically significant.

Table 4 Paired Samples Test

Paired Samples Test									
Pair	Pre Test - Post Test	Paired Differences			95% Confidence Interval of the Difference		t	df	Sig. (2- tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
1		- 46.278	7.451	1.242	-48.799	-43.757	- 37.265	35	.000

Overall, the results of the SPSS analysis demonstrate that the training on enhancing visionary leadership and utilizing digital technology has successfully significantly improved participants' knowledge and skills. This improvement is not only evident from the substantial difference in average scores but is also supported by consistent and statistically significant test results. Participants also showed a positive response to the material presented, particularly regarding the use of AI technology, which they considered relevant to their needs in facing the challenges of the digital era. This training not only succeeded in enhancing participants' technical competencies but also raised awareness of the importance of visionary leadership in driving digital transformation in the educational environment.

The results of the visionary leadership enhancement training at Yayasan Miftahul Huda Suwayuwo, Pasuruan Regency, demonstrate that the training approach, which combined material presentations, practical sessions, and evaluation through pretest and post-test, had a significant impact. The increase in the average score from 38.47 in the pretest to 84.75 in the post-test indicates that participants experienced a substantial improvement in their knowledge and skills (Akbar et al., 2022; Beckett et al., 2017; Creswell, 2014). This aligns with the findings of Fullan (2013) who emphasizes that the integration of technology in education requires transformative leadership and digitally competent teachers. The training successfully equipped participants with the theoretical understanding and practical skills needed to face the challenges of the digital era.

The material presentation session on digital learning leadership and digital competencies for teachers played a crucial role in raising participants' awareness of the importance of technology adaptation in education. This material not only provided insights into the concept of visionary leadership but also inspired participants to implement changes in their school environments (Alnuaimi et al., 2022; Baglama et al., 2022; Hamzah, N et al., 2021; Hamzah, 2021; Klien, 2020). According to Goleman, Boyatzis and McKee (2013), effective leadership in the digital era requires the ability to motivate and inspire, as well as to build a culture of innovation. This was reflected in the enthusiasm of participants during the presentation sessions, showing that they began to recognize their strategic role in driving digital transformation in schools.

The practical session on utilizing AI tools such as ChatGPT, Copilot, and Leonardo was a critical component of the training. Participants not only learned about the theory but also directly practiced using these tools. The ability to provide clear and structured prompts, taught during the training, proved effective in boosting participants' confidence in using AI technology (European Parliament, 2020; Fornasier, 2021; Kumar, 2023; Liu & Ren, 2022; UNESCO, 2023). These results align with the research by Chui *et al.*, (2022) which states that AI literacy is an essential skill for leaders and educators in the digital era. The hands-on practice also allowed participants to experience firsthand the benefits of AI technology in an educational context, motivating them to adopt it in their daily activities.

The statistically significant results, both from the Independent Samples Test and the Paired Samples Test, reinforce the finding that the training successfully achieved its objectives. The significant improvement between the pretest and post-test indicates that the training had a tangible positive impact. Additionally, the low correlation between the pretest and post-test ($r = 0.120$) suggests that the improvement was more influenced by the training itself rather than by the participants' initial capabilities. This proves that a holistic training design, encompassing material

presentation, practical sessions, and evaluation, is capable of producing meaningful change (Giacquinta, 1973; Hussain, 2014; Kaur et al., 2018; Purba, 2021; Statistik, 2019).

Overall, this training not only successfully enhanced participants' technical competencies but also built the mindset of visionary leadership necessary to address the challenges of digital transformation. With the knowledge and skills gained, school principals and teachers at Yayasan Miftahul Huda Suwayuwo are now better prepared to lead digital innovation in their schools, thereby positively impacting the development of students' competencies in the digital era.

4. Conclusion

The visionary leadership enhancement training conducted at the Miftahul Huda Suwayuwo Foundation in Pasuruan Regency in July 2024 has proven its effectiveness in improving participants' knowledge and skills, particularly in facing the challenges of digital transformation. Through a combination of material presentations, hands-on practice, and pretest and post-test-based evaluations, this training successfully equipped school principals and teachers with a deep understanding of digital learning leadership and practical competencies in utilizing AI technologies such as ChatGPT, Copilot, and Leonardo. Statistical analysis results showed a significant increase in participants' scores, with the average post-test score reaching 84.75 compared to the pretest average of only 38.47. This indicates that the training not only succeeded in enhancing technical competencies but also in building the visionary leadership mindset necessary to drive innovation in the educational environment.

It can be concluded that this training has provided a strong foundation for the Miftahul Huda Suwayuwo Foundation in facing the digital era. School principals and teachers who participated in the training are now better prepared to lead digital transformation in their schools, create innovative learning environments, and ensure that students can develop competencies relevant to the needs of the 21st century. The success of this training also underscores the importance of a holistic approach in leadership training, which focuses not only on theory but also on practice and evaluation to ensure sustainable impact.

Reference

- Akbar, A. A., Rohmiasih, C., Rohmiati, C., & Cholidah Hanum, N. (2022). Urgensi Learning Agility dalam Menjawab Pendidikan Karakter di Era 4.0. *EPiK: Jurnal Edukasi Penerapan Ilmu Konseling*, 1(2), 55–61. <https://doi.org/10.37010/epik.v1i2.11355>
- Alnuaimi, B. K., Kumar, S., Ren, S., & Budhwar, P. (2022). Mastering Digital Transformation: The Nexus between Leadership, Agility, and Digital Strategy. *Journal of Business Research*, 145(September 2021), 636–648. <https://doi.org/10.1016/j.jbusres.2022.03.038>
- Baglama, B., Evcimen, E., Altinay, F., Sharma, R. C., Tlili, A., Altinay, Z., Dagli, G., Jemni, M., Shadiev, R., Yucesoy, Y., & Celebi, M. (2022). Analysis of Digital Leadership in School Management and Accessibility of Animation-Designed Game-Based Learning for Sustainability of Education for Children with Special Needs. *Sustainability (Switzerland)*, 14(13), 1–12. <https://doi.org/10.3390/su14137730>
- Beckett, C., Eriksson, L., Johansson, E., & Wikström, C. (2017). Multivariate Data Analysis (MVDA). In *Pharmaceutical Quality by Design: A Practical Approach*. Pearson Education Limited. <https://doi.org/10.1002/9781118895238.ch8>
- Chui, M., Hall, B., Mayhew, H., Singla, A., & Sukharevsky, A. (2022). The State of AI in 2022 - and A Half Decade in Review. *Quantum Black, AI by McKinsey, December*. <https://doi.org/https://www.mckinsey.com/~media/mckinsey/business%20functions/quantumblack/our%20insights/the%20state%20of%20ai%20in%202022%20and%20a%20half%20decade%20in%20review/the-state-of-ai-in-2022-and-a-half-decade-in-review.pdf?shouldIndex=false>
- Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. SAGE Publications. http://fe.unj.ac.id/wp-content/uploads/2019/08/Research-Design_Qualitative-Quantitative-and-Mixed-Methods-Approaches.pdf
- European Parliament. (2020). *Research for CULT Committee - The Use of Artificial Intelligence (AI) in Education* (Issue May 2020).
- Fornasier, M. D. O. (2021). Legal Education in The 21st Century and The Artificial Intelligence. *Fortaleza*, 19(31), 1–32. <https://doi.org/10.12662/2447-6641oj.v19i31.p1-32.2021>
- Fullan, M. (2013). *Stratosphere: Integrating Technology, Pedagogy, and Change Knowledge*. Pearson.
- Giacquinta, J. B. (1973). 6: The Process of Organizational Change in Schools. *Review of Research in Education*, 1(1), 178–208. <https://doi.org/10.3102/0091732X001001178>
- Goleman, D., Boyatzis, R., & McKee, A. (2013). *Primal Leadership: Unleashing the Power of Emotional Intelligence*. Harvard Business Review Press.
- Hamzah, N, H., Nasir, M, K, M., & Wahabi, J, A. (2021). The effects of principals' digital leadership on teachers' digital teaching

- during the covid-19 pandemic in malaysia. *Journal of Education and E-Learning Research*, 8(2), 216–221. <https://doi.org/10.20448/journal.509.2021.82.216.221>
- Hamzah, M. I. M. (2021). Digital Leadership: Way Forward For Islamic Education. *1st International Conference of Islamic Education (INCISED)*, 1–16.
- Hussain, M. (2014). Descriptive Statistics - Presenting your Results I. *Journal of the Pakistan Medical Association*, 2012. https://www.researchgate.net/publication/228094603_Descriptive_statistics_-_presenting_your_results_I
- Kaur, P., Stoltzfus, J., & Yellapu, V. (2018). Descriptive Statistics. *International Journal of Academic Medicine*, 4(1). <https://doi.org/10.4103/IJAM.IJAM>
- Klien, M. (2020). Leadership Characteristics in the Era of Digital Transformation. *Business & Management Studies: An International Journal*, 8(1), 883–902. <https://doi.org/10.15295/bmij.v8i1.1441>
- Kotter, J. P. (2012). *Leading Change*. Harvard Business Review Press.
- Kumar, M. J. (2023). Artificial Intelligence in Education: Are we ready? *IETE Technical Review*, 40(2), 153–154. <https://doi.org/10.1080/02564602.2023.2207916>
- Liu, Y., & Ren, L. (2022). The Influence of Artificial Intelligence Technology on Teaching under the Threshold of “Internet + ”: Based on the Application Example of an English Education Platform. *Wireless Communication and Mobile Computing*, 1–9. <https://doi.org/https://doi.org/10.1155/2022/5728569> Research
- McKinsey & Company. (2024). What Is Digital Transformation? *McKinsey & Company*, 64(1), 1–6. <https://doi.org/10.1080/07366981.2020.1847813>
- Purba, N. S. (2021). A Descriptive Quantitative Study of Students' Anxiety in Reading and Writing in Learning English at the Eighth Grade of Mts Hadharatul Islamiyah Sipispis. *JADEs: Journal of Academia in English Education*, 2(1), 93–109. <https://journal.iainlangsa.ac.id/index.php/jades/article/view/3262/1724>
- Statistik, B. P. (2019). *Statistik Indonesia*. Badan Pusat Statistik. <https://www.bps.go.id/publication/download.html?nrbvfeve=ZGFhYzFiYTE4Y2FIMWU5MDcwNmVINThh&xzmn=aHR0cHM6Ly93d3cuYnBzLmdvLmklL3B1YmxpY2F0aW9uLzlwMTkvMDcvMDQvZGFhYzFiYTE4Y2FIMWU5MDcwNmVINThhL3N0YXRpc3Rpay1pbmRvbmVzaWEtMjAxOS5odG1s&twoadfnoarfeauf=MjAyMC0wMy0>
- UNESCO. (2023). *ChatGPT and Artificial Intelligence in Higher Education*. UNESCO.