

The Leadership of the Principal in the Industrial Revolution Era 4.0 and Its Applications at Paramount School

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ABSTRACT

The aim of this research is to determine how the principal's leadership was in the Era Of Industrialization 4.0 and how it is implemented at Paramount School. When changes arise in all areas of education, we must take the initiative to figure out how to respond to the changes. This research technique uses descriptions with interview techniques, documentation, and observation. The research object is the principal, teachers, and employees relating to the data that the researchers took. According to the findings of the study, Paramount School has applied leadership in the tradition of the Fourth Industrial Revolution and the Age of Innovation in terms of both teaching and learning, methods, and management of the organization. It can be seen from the changes that have occurred in terms of management, provision of infrastructure, and management of human resources.

Keywords: Industrial Revolution 4.0, Change, Education, Disruption

1. INTRODUCTION

The Industrial Revolution 4.0 which is known as the information age and technology is known as information technology which has extraordinary power in collecting, processing, sorting and reconciling information. The changes caused by this information technology affect changes in almost all aspects of human life. This is caused by the widespread use of the internet and digitization in various fields of work. Apart from the negative effects, the positive effects of the internet have also been felt by the public and have even provided a convenience effect on all fronts. [1].

With the offer of a new face of world civilization today, what is the face of education now? Are education policymakers keeping up with these changes? So how do leaders of educational institutions and heads of educational units respond to and welcome the Great Shifting in this new civilization? If this change occurs on all fronts, the biggest homework for education policy stakeholders is how education in Indonesia responds by giving birth to a generation that is able to compete in the 4.0 Revolution era. In the midst of these changes, inevitably education must be forced to fix and adapt to the existing changes. Schools and universities or other educational institutions are at least able to present educational renewal programs and offers that can later be prepared to face these challenges.

Teachers and lecturers must be brave and not ashamed to learn again about current changes to create more learning. Because the demands that are rapidly changing are no longer the same as the education, they received decades ago. This renewable learning aims to package education that is attractive and attractive to students to fill the demands of the times. Leaders in the field of education should start to open their eyes about this change, from owning to sharing, do they follow this "Big Group"? Or they stick with the old way (Stand Still). This small change can be started regarding the existence of groups and strata of education in Indonesia. Our education still carries class discrimination. On the one hand, the children's learning motivation is still low and on the other hand, many intelligent children who have the right to enjoy the sweetness of education are forced to quit because they do not meet formal requirements. Schools still create a "smart group" and a "stupid group". The cost of quality schools cannot be reached for those who want to enjoy a decent education. Within the education system itself, Indonesian Education still maintains the status quo. The system and methods that are implemented are still long, as a result, it does not provoke children to think openly, free to build deeper [2].

The era of disruption in which the Industrial Revolution 4.0 requires a type of leader who can guess and has a future orientation. Leaders must be able to read the opportunities and challenges that the

organization will face. Especially in terms of education, it is significant for the progress of the nation. Educational leaders must also be able to answer the challenges and changing times that are needed.

Educational leaders must be able to afford these symptoms by changing curricula or programs that explore student output abilities to be more competitive. Leaders must be able to provide and deliver high-skilled jobs rather than low-skilled workers in the future. Schools must provide infrastructure and change programs or curricula to meet and compete in this era. Apart from that, education itself also has to adjust by presenting digital teaching.

From the phenomena that the author describes above regarding changes, disruption, and shifting that will also occur in the education sector, the authors are interested in conducting studies at one of the modern schools in Palembang, Paramount School, because in the last three years, foundation leaders and school principals have been doing big buzz. This change was carried out by the foundation both in terms of management, provision of technology-based infrastructure, changes in learning patterns, changes in work patterns, learning media, and instilling a spirit of responsiveness to change, especially in the world of education.

Through observations during that time, it turns out that several problems have occurred, including some employees and teachers, their work patterns are still running with an old pattern, marked by discipline that has not improved, slow in responding to changes and especially not maximally in teamwork. This will be part of the obstacles that arise in implementing work programs and slowing down school performance. With today's change, working fast, responsive, always learning new things, and changing is the key pattern for success in the future. The initiative of the Paramount school leader to make changes in the education sector, the author has described above to be responsive to change is a very precise and appropriate step regardless of the slow pace of employees and subordinates who have not been able to keep up with their movements. The style of leadership embraced by the Principal would contribute to the results and success of the Principal in guiding and executing the school education process [3]. That the initiative to make changes with various systematic efforts, many educational organizations do [4].

To face the industrial revolution 4.0, various preparations are needed, including the right educational learning method [5]. In making changes that are made must always be measured because otherwise, it will be far from what is expected. Eight mistakes are often made that cause the world of education to fail in making the expected big changes. These things according to John P. Kotter in his book: "Leading Change" are as follows, (a) allowing excessive complacency, (b) failing to form a strong change steering team, (c) underestimating the strengths of a vision, (d) the vision

is not well communicated, (e) ignore the obstacles that get in the way of achieving the vision, (f) failing to secure short-term wins, (g) claiming final victory too quickly, (h) failing to standardize changes in the school culture.

The aim of this research is to decide how principal leadership would change in the era of the Fourth Industrial Revolution, and how it was implemented in the Paramount Palembang school. Additionally, it is also to find out how the obstacles are and how to overcome these obstacles so that the wheels of the organization run and by the vision of the school organization. From some of the views above, it can be concluded that there is a need for educational leaders who can change the face of education with a breakthrough program and the vision that is formed. A visionary leader who is supported by complete infrastructure will be able to change the direction of a more modern education by the times as well as according to future orientation. Especially for the teaching staff, more than that, how a teacher can communicate and adapt in the direction of the hands of the times [6].

The quality of leaders in the world of education is very influential on the quality and progress of the schools that are led. Therefore, it takes strong leadership in an organization, especially in the field of education. Leadership comes from the word "leader". The term "chief" refers to someone who directs, builds or manages, guides, and also shows or influences. Leaders bear physical and moral responsibility for the performance of the work activities of the people they lead, so becoming a leader is not straightforward, and not everyone will have the same experience in carrying out their leadership [7]. [8] argue that leadership is a process of directing and influencing activities related to the work of members.

More conical about interpreting leadership as a process of influence in group activities related to the task. In line with another understanding that leadership is a process of influencing [9].

From several views on the notion of leadership above, it can be concluded that leadership is a process or quality of a person to influence, direct coordinating individuals or groups to jointly carry out certain activities to achieve goals effectively.

Its implementation, several leadership styles are applied in organizations including First is the Autocratic Style. This style of leadership considers the organization as private property, identifies personal goals with organizational goals, considers subordinates only as tools, is difficult to accept criticism and suggestions, is too dependent on formal power, all of its policies use a coercive and punitive approach, Military style leadership [10]. Both Paternalistic Styles. This type of leadership uses fatherly influence in moving subordinates to achieve goals. Sometimes the approach is too stressful. Related to that, the paternalistic leader will be too protective, his intention is good, but the

practice will be negative. Third, Democratic leader style. This leadership style can influence other people so that they are willing to work together to achieve predetermined goals. All members are invited to participate to contribute their thoughts and energy to achieve organizational goals.

Charismatic leader style, this type of charismatic leader has the power of attraction energy that can influence others. So that he has a large number of followers. Usually, this leader likes change and challenges. In addition to the leadership style in the bag, there are also visionary and Laissez-Faire leadership styles (free leadership).

The industrial revolution is made up of two (2) words: revolution and manufacturing. The two terms are combined to mean a rapid shift in the manufacturing process. Friedrich Engels and Louis-Auguste Blanqui coined the word "Industrial Revolution" in the mid-nineteenth century. This technological revolution occurs from time to time as well. This decade has already reached the fourth step of the 4.0 revolution. The transition from one step to the next results in distinct differences in its application. The first step (1.0) starts with the discovery of a computer that emphasizes (stresses) output mechanization. The second phase (2.0)

has advanced to mass manufacturing, which is combined with quality control and standardization. In the third step (3.0), the mass uniformity stage, which is based on computerized integration, begins. The fourth step (4.0) showed the digitization and automation of internet-to-manufacturing integration [11]. In Warta Ekonomi May 7, 2019, the stages of the industrial revolution start from industrial revolution 1.0 with the discovery of the steam engine and followed by the industrial revolution 2.0 with the discovery of electricity, the industrial revolution 3.0, if the first revolution is triggered by a steam engine, the second revolution is triggered by conveyor belts and electricity, this third revolution was triggered by machines that can move and think automatically, namely computers and robots.

And the last one is the industrial revolution 4.0 at this stage, Manufacturing technology has embraced automation and data sharing. Cyber-physical devices, the Internet of Things (IoT), cloud computing, and cognitive computing are all examples of this. This pattern has influenced many aspects of human life, including the economy, the workplace, and even lifestyle. In a nutshell, the fourth industrial revolution employs intelligent technology that can be linked to different aspects of human life.



Figure 1. Revolution Industry Steps

2. METHODS

This is a descriptive analysis with the aim of gathering knowledge and current symptoms [12]. It is used to examine the condition of natural objects (not experiments) [13]. This study aims to describe and interpret the phenomena that occur in the field. Data collection techniques use interview techniques face to face with respondents in order to get the data or information needed.

Namely data validity, data reduction, data presentation, and verification or conclusion. Furthermore, using the observation technique, namely by systematically observing and recording the symptoms that appear in the object of research [14]. The documentation technique is also used, namely by

collecting data that aims to obtain written facts, namely in the form of documents, reports, archives, and/or other written materials related to the focus of the research [15].

3. RESULTS AND DISCUSSION

1) The leadership of the principal in the era of the Industrial revolution 4.0 and its application at the Paramount school

Management The management of leadership in an institution is very significant. This is related to the quality of the governance system that is being implemented. If governance is positive, it will indirectly produce quality human resources and also have an impact on the development and advancement of an

institution. Conversely, if leadership management governance is less positive, it will have a less positive impact on quality [16], this is because the position of the principal has a significant role in improving and developing schools on an ongoing basis [17]. Quotes the opinion of [18]. (2009) other explanations that the principal has a vital role in arousing the spirit of achievement in the school environment, creating an organizational culture that encourages creativity, and instilling a mentality of unyielding competition. Leadership style is a behavior pattern of a typical leader when influencing group members [19].

The management of leadership in an institution is very significant. This is related to the quality of the governance system that is being implemented. If governance is positive, it will indirectly as individuals and as groups. The behavior of the principal must be able to encourage the performance of teachers, by showing a friendly, close, and full consideration of teachers.

The position of the principal is a center of leader who regulates and manages activities to be focused, focused, and experience significant improvement. In terms of the application of leadership in the current era, the Principal of Paramount School in his leadership can be divided into several parts. The leadership of the principal can be seen in the following aspects:

a) Organizational Management

From the work procedure chart above the principal's performance can be studied and understood how the effectiveness of the school organization wheel. Besides, it can be assessed that the principal and also the foundation at the Paramount school directly involve teachers from the teacher's side apart from their duties in teaching. The involvement of teachers in school activities has proven to be beneficial to teachers because they directly practice how to learn about organizations and event organizers.

In addition to activities, the value of cooperation at Paramount school also shows that there are parallel classes that require intense collaboration as well as solidarity.

From several cooperative systems that have been formed and led by the principal. It is evident that the principal has carried out good leadership and democratic way by involving all teachers to make decisions together, and the results are shared.

b) Meeting Agenda

In the coordination of the school principal's organization, held regular meetings for evaluation and coordination. The meeting is held once a week and a large meeting with the foundation is held once a month. The meeting once a week is chaired by the principal.

The meeting could contain learning evaluations for one week of school development.

Next is the monthly meeting. In addition to school management, this meeting is also filled by foundations. The agenda of this meeting is the provision of motivational material which is filled in by each teacher who is given the assignment that day. More specifically, Paramount school has a Teacher of the Month program, namely teachers who excel each month whose assessments are issued by the Human Resources Staff. Every teacher who gets an award that month is given the obligation to fill a small seminar for all teachers to be inspired and motivated. After the seminar, the teacher will be given a motivational book to inspire others, as well as receive additional financial incentives from the foundation.

c) Procurement of Facilities.

In the current industrial revolution era, the Principal of Paramount school also renewed himself with all facilities to suit the times. In response to the changes that have recently occurred due to the times, the Principal of Paramount has also conveyed to the foundation that it is in accordance with the times. Apart from teaching purposes, it is also in the interests of security and comfort. The facilities are such as: CCTV equipment scattered throughout the classrooms and school buildings. Purchasing a camera set for the student YouTuber program, building a mini studio, procuring a language lab, and procuring a robotics lab.

2) Principal Leadership Application in The Era Of The Industrial 4.0 Revolution At Paramount Schools

Structurally, every policy taken at Paramount school is instructive and democratic. One of the progressive attitudes by the school principal is derived from the policy adopted by the foundation as the owner of the school, namely the Harapan Bangsa Sriwijaya Foundation. According to the foundation, these reform activities, in line with the interviews the researchers took from the head of the foundation, have started to appear since 2007. According to the head of the foundation, changes in management patterns must be carried out because they are in accordance with the changes that have occurred.

3) Constraints and solutions the application of principal leadership in the era of the industrial revolution 4.0 at Paramount schools

Obstacles to introducing leadership in the period of the fourth industrial revolution at Paramount schools include the following: First, Communication, Communication from teachers is considered less proactive to superiors. The leader factor has been open and pro-active by holding meetings that open up sharing between teachers, employees, and the principal. Even the principal also communicates through private

channels, but sometimes teachers and employees pay less attention when the principal explains something. Second, reluctant to learn with new knowledge. The era of the industrial revolution 4.0 brought all levels of society, even all institutions, and organizations, to become disruptive. Disruptive itself is a condition when a business is required to continue to innovate following developments so that the business is not only able to meet present needs, but can anticipate future needs [20]. These obstacles can be overcome by First, holding regular meetings every week to report each task. This spurs teachers to inevitably complete tasks that occur whether they are related to technology or not. As a result, the teachers have to learn and do not depend on other people for their duties. Second, there is an individual task to stimulate them to continue learning.

4. CONCLUSION

In organizing the school, the Paramount School has implemented a leadership system that is appropriate to the times. Changes that are taken through decisions are visionary policies. This can be known, such as the policy of making marketing divisions, teaching based on IT, fostering collaborative behavior among employees, and the application of giving rewards to employees who excel.

The application includes the holding of IT-based teaching programs, YouTube lessons, mini studios, and so on is an application of a principal's policy so that it fits the guidance so that students can live in their day. Obstacles in its application can be overcome by personal approaches such as senior teachers who do not want to learn, or other means through regular meetings. According to the findings of research based on data collected, principal leadership in the era of the fourth industrial revolution and its implementation in paramount schools demonstrated promising results. For this reason, the authors hope that the benefits of this technology application can also be applied in other schools as well in research. Teacher training for technology literacy as a result of the industrial revolution and its impact must also be encouraged, especially support from the government to hold teacher training to obtain updated knowledge. The use of technology for teachers should continue to be encouraged because technology will make teachers more confident and easier to teach their students so that they can turn classrooms into

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REFERENCES

- [1] Kasali, R. (2018). *The Great Shifting [The Great Shifting]*. Jakarta: Gramedia Pustaka Utama.
- [2] Nugroho, S. (2014). Pemimpin visioner dalam Institusi Pendidikan [Visionary Leaders in Educational Institutions]. *Jurnal Ilmiah Guru "COPE"*, XVIII (01): 41-42.
- [3] Astuti, R. W., Fitria, H., & Rohana, R. (2020). The Influence of Leadership Styles and Work Motivation on Teacher's Performance. *Journal of Social Work and Science Education*, 1(2), 105-114. Retrieved from <https://ejournal.karinosseff.org/index.php/jswse/article/view/33>
- [4] Tampubolon, D. P. (2001). *Perguruan Tinggi Bermutu Paradigma Baru Manajemen Pendidikan Tinggi Menghadapi Tantangan Abad ke-21 [Higher Education with New Paradigm of Higher Education Management Facing the Challenges of the 21st Century]*. Jakarta: PT Gramedia Pustaka Utama.
- [5] Wibawa. (2018). *Pola Pendidikan di Era Revolusi Industri 4.0 [Education Pattern in the Industrial Revolution Era 4.0]*. Jakarta: Dian Pustaka.
- [6] Fitria, H., & Suminah, S. (2020). Role of Teachers in Digital Instructional Era. *Journal of Social Work and Science Education*, 1(1), 70-77. Retrieved from <https://ejournal.karinosseff.org/index.php/jswse/article/view/11>
- [7] Harahap, I. H. (2019). Analisis Gaya Kepemimpinan Lee Kuan Yew dalam Mengantarkan Singapura menjadi Negara Maju [Analysis of Lee Kuan Yew's Leadership Style in Delivering Singapore to become a Developed Country]. *Journal of Entrepreneurship, Management, and Industry (JEMI) Vol. 2, No. 1, pp. 1-8*.
- [8] Handoko, T. H. (2012). *Manajemen. Edisi 2 [Management. Edition 2]*. Yogyakarta: BPFE.
- [9] Robbins, S. (2007) *Manajemen [Management]*. Edisi kedelapan / jilid 2. Jakarta, PT. Grafindo.
- [10] Sugandi, S. (2011). *Administrasi Publik [Public Administration]*, edisi pertama, cetakan pertama. Graha Ilmu, Yogyakarta: BPFE.
- [11] Suwardana, H. (2017). Revolusi Industri 4.0 Berbasis Revolusi Mental [4.0 Industrial Revolution Based on Mental Revolution]. *Jati Unik* 1(2), 102-110.
- [12] Arikunto, S. (2005). *Manajemen Penelitian [Research Management]*. Jakarta: Rineka Cipta.

- [13] Sugiyono. (2015). *Metode Penelitian Pendidikan, Pendekatan Kuantitatif, Kualitatif dan R & D [Educational Research Methods, Quantitative Approaches, Qualitative and R & D]*. Bandung: Alfabeta.
- [14] Arikunto, S. (2010). *Prosedur Penelitian Suatu Pendekatan Praktek [Research Procedure A Practice Approach]*. Edisi Revisi. Jakarta: Rineka Cipta.
- [15] Djamarah, S. B. (2010). *Metode dan Statistika Penelitian [Research Methods and Statistics]*. Jakarta: Rajawali Pers.
- [16] Husaini., & Fitria, H. (2019). Manajemen Kepemimpinan Pada Lembaga Pendidikan Islam [Leadership Management in Islamic Education Institutions]. *JMKSP Volume 4, No.1*.
- [17] Yang, Y. (2014). Principal's Transformational Leadership in School Improvement. *International Journal of Educational Management, 28 (3), 279-288*.
- [18] Maryati, E., Fitria, H., & Rohana, R. (2020). The Influence of Principal's Leadership Style and Organizational Culture on Teacher's Performance. *Journal of Social Work and Science Education, 1(2), 127-139*. Retrieved from <https://ejournal.karinosseff.org/index.php/jswse/article/view/38>
- [19] Mulyasa, E. (2009). *Menjadi Kepala Sekolah Profesional [Become a Professional School Principal]*. Bandung: Remaja Rosdakarya
- [20] Prasetyo, B., & Trisyanti, U. (2019). Revolusi Industri 4.0 dan Tantangan Perubahan Sosial [Industrial Revolution 4.0 and the Challenges of Social Change]. Prosiding *SEMATEKSOS 3 "Strategi Pembangunan Nasional Menghadapi Revolusi Industri 4.0"*.