69

MANAGEMENT INDICATORS OF GOOD INFRASTRUCTURE FACILITIES TO IMPROVE SCHOOL QUALITY

Edy Siswanto¹, Dian Hidayati²

1,2, Magister Management of Education, University of Ahmad Dahlan, Yogyakarta, Indonesia

□ edy1807046003@webmail.uad.id¹ dian.hidayati@mp.uad.ac.id²

Abstract. Facilities and infrastructures in education are essential to improve the quality of the teaching and learning process in schools. Principals are responsible for managing facilities and infrastructures in schools. The implementation of learning to teach in schools will be subjected to obstacles when facilities and infrastructure are inadequate. The purpose of this research is 1) describing the importance of facilities and infrastructure in improving the quality of learning, 2) Knowing how to plan, manage, use and maintenance of facilities and infrastructure in schools, 3) indicators Management of good infrastructure for the improvement of School quality 4) school readiness in preparing facilities and infrastructure to support learning in the 4.0 era. The case study used in MTS Muhammadiyah Sidomulyo. The research used in this research is descriptive qualitative research. Data collection techniques using interviews, observation, and documentation. The results of the research show that the headmaster is planning in fulfilling facilities and infrastructure tailored to the level of needs each year. The planning will be known as management indicators of any infrastructure which is a good or most significant influence on the improvement of the quality of the school. Precisely the use of facilities and infrastructure can improve the quality of learning in Mts Muhammadivah Sidomulvo. Damaged facilities and infrastructure will be given repairs. If no longer repaired, the school will apply for new procurement. All parties in the school must maintain existing facilities, and infrastructures to improve the quality of learning.

Keywords: Management, Facilities, and Infrastructure, Quality of Learning

INTRODUCTION ~ Education is one way of improving human resources that are intelligent and qualified. For good education, good management is also needed in learning. Good management makes organizational goals accomplished (Fattah, 2000:3). Many factors in improving the quality of learning in school are one of the facilities and infrastructure education. Well-fulfilled and adequate facilities will support the teaching and learning system. The learning process requires good management of education facilities and infrastructure so that the activities run with the Lancer (Husnaini

Usman, 2013:6). According to Mohammad Mustari (2014), the education facility is all the facilities needed for the learning process both moving and not moving. While infrastructure is a facility that is used to support the learning process.

Management is organizing or managing activities in an organization in the achievement of an objective (Echols and Shadily, 2005). Management can also be interpreted as a process consisting of planning, organizing, and supervision conducted in achieving the objectives of

Journal homepage: http://journal2.uad.ac.id/index.php/ijemi

the Organization by utilizing human resources and others.

According to Ibrahim Badafal (2004, pp. 1-2) management of education facilities and infrastructure is part of school administration. Infrastructure management is a cooperation mechanism that is related to all equipment and the use of all educational equipment, making it more effective and efficient.

Based on law number 20 of 2003 about the national education system, management of facilities and infrastructure is the responsibility of every school. The head of the Madrasah is responsible for the planning, management, and maintenance of facilities and infrastructure. Facilities and infrastructures need to be managed properly as it is part of education management. Facilities and infrastructures that are fulfilled and adequate will make the process of learning to be fun and quality. Conversely, limitations on facilities and infrastructures in schools may make the learning process problematic or impaired. This makes students learning interests decline.

Gorontalo Province Regional Regulation No. 6 of 2015 also explains the management and organization education in regions that support human resources through the arrangement and infrastructure, management and support of educational services SO that the development of potential educational

resources to become people of faith and devotion to God Almighty noble, healthy, knowledgeable, creative, independent and become a citizen who is supported and responsibly based on excellence and local wisdom

The next indicator is used to measure the achievement of facilities and infrastructure in the school to improve the quality of education. Indicators are measuring instruments in knowing the achieved or absence of learning objectives by the basic competencies. Indicators are used as a measuring instrument in assessing the feasibility of facilities and infrastructure by Candy No. 2 the year 2007 about the feasibility of facilities and infrastructure (Ruslandi, 2019).

In the 4.0 era as it is today, education must follow the challenges developments of the Times in order not to be left behind, where learning in the 4.0 era of education is required to follow and utilize technological advances. The development of technology is expected to support media learning to improve the quality of education in schools. Based on the above background, the author will research MTs Muhammadiyah Sidomulyo located in Gorontalo Regency Gorontalo province. The research will be conducted as follows:

 The importance of facilities and infrastructure in improving the quality of learning in MTs MUhammadiyah Sidomulyo.

- How to plan, manage, use and maintenance of facilities and infrastructure in MTs MUhammadiyah Sidomulyo.
- 3) What are the management indicators of good infrastructure to improve the quality of MTs MUhammadiyah Sidomulyo?
- 4) How to prepare school readiness to support learning in the current 4.0 era.

LITERATURE REVIEW

Hajeng and Karwanto (2014) in his research showed that the administrative personnel who have the expertise are very helpful to succeed in managing the facilities and infrastructure in the school. Furthermore, in supporting the success of the facilities management and school infrastructure also provide training to teachers, complete supporting facilities that can increase the learning interest of students such as a good and interesting library. All school residents participated in the maintenance of existing facilities and infrastructures.

Based on the results of the research Ulpha and Dedy (2016) shows that the learning facilities influence the quality of education. Poor learning facilities or lack of teachers 'skills in utilizing existing facilities such as the use of technology and information can be a constraint when the procurement of facilities. This causes the quality of education in schools to be optimally achieved.

Furthermore, the results of the research of Nia Fauziah (2010) explained that the head of Madrasah and its staff coordinate the management of facilities and infrastructures in the school. Management of facilities and infrastructure is managed properly from planning, procurement, inventory, maintenance, and deletion and supervision. Furthermore, limited storage or warehouse in school and lack of management personnel can be an obstacle in improving the quality of learning in school.

According to the research results, Ahmad Fauzan (2018) in making planning and procurement of school infrastructure should conduct surveys to the entire school unit to create a master plan and further evaluate. Further, should consider the principles of effectiveness and efficiency in the use of educational facilities and infrastructure.

The research results of Amir Kumar Singh and Mili Singh (2014) show that the role of facilities and infrastructure in school education has a huge role in the teacher's performance. Furthermore, infrastructure design in poor schools has an impact on the health of students and teachers, thus affecting the teaching and learning process.

Based on the results of the research of Shuaibu Musa (2016) the results reveal that the inadequate infrastructure of schools affects quality learning processes. Lack of facilities and infrastructures in the school

should be negotiated with the government. Furthermore, all related to schools such as government, madrasah, teachers, and parents can cooperate in helping the development of quality school infrastructure. Responding to the declining quality of public primary education, the Interagency Commission (UNDO, UNESCO, UNICEF, and WORLD BANK) held a World Conference on Education for All (EFA) to discuss other matters, issues of access and quality of primary schools on a global scale

RESEARCH METHODS

The approach used in this study is qualitative descriptive research with a case study design. A qualitative approach is a method of research used in natural object research and is research naturalistic (Sugiyono, 2010). Research conducted in MTs Muhammadiyah Sidomulyo Gorontalo District Gorontalo Province. The subject of this study is the head of madrasas, teachers, infrastructure managers, and students. Data collection techniques using interviews, observations and documentation. Data on educational facilities and infrastructure based on sweets No. 24 the year 2007 about the standard of facilities and infrastructures for Madrasah Tsanawiyah (MTs).

RESULT

The Importance of Facilities and Infrastructure in Improving Learning Quality

Facilities and infrastructure are part of education management. This is contained in the Law of the Republic of Indonesia year 2003 on national education. Muhammadiyah Sidomulyo has adequate facilities and infrastructures that have been following national education standards in supporting the quality of learning. The facilities and infrastructures that are managed and well-equipped and correctly able to increase students 'interest in learning. Not only positively impact students of MTS Muhammadiyah Sidomulyo but also for teachers who teach. Teachers become the spirit of learning to teach and practice in class. The completeness of infrastructure makes learning to teach more effectively and efficiently. It is seen from the laboratory room and the library room that can make students interested in learning. The process of learning becomes enjoyable. This is in line with the research results of Usman DKK (2014) stating that the effective and efficient teaching process will make the learning experience good and the good facilities are given are able to can achieve learning objectives.

Furthermore, the prayer room also improves the quality of learning, because with the worship of making students have a good ahklak. With the facilities and quality infrastructure in MTs Muhammadiyah Sidomulyo able to improve the knowledge and skills of the students. This is in line with the research results of Ruslandi and Chaerul Rochman (2019) The results showed that

the facilities and infrastructures that are managed by both and true in particular the classroom can create the purpose of optimal management. Management of facilities and infrastructure, especially the classrooms can create a learning environment that provides a positive impact on the students to give the results that will be achieved by the students. Furthermore, Badafal (2008) mentions that facilities and infrastructure are factors that determine the success of education, complete facilities and infrastructure in the school has a very large role in the effectiveness and smoothness of the teaching and learning process in the classroom.

Planning, Management, Use and Maintenance of Facilities and Infrastructure

Planning is the initial process done in the managerial activity of an organization (Yamin and Maisah, 2009:6). Planning of procurement of facilities and infrastructures in MTs Muhammadiyah Sidomulyo filed every new school year. Besides planning the procurement of new facilities or infrastructure school also makes plans for the replacement of damaged facilities and infrastructure. The head of the Madrasah and teachers make the planning according to the needs of the school. The purpose of planning to fulfill fewer facilities and infrastructure or to replace goods that have not been worth using. The necessary facilities and infrastructure are analyzed according to the level of importance so that they can take precedence. Once analyzed as needed than in the evaluation again. The results of the meeting discuss needs over the next year. Budget planning facilities and infrastructures are known by school Finance/by the the School Committee and subsequently approved by the head of the Madrasah as a responsible person. According to Bandono (2014) Planning of procurement of facilities and infrastructure should be by the procedures such as knowing the type of goods purchased, specifications, prices and the amount. And must be clear and accountable.

3

The role of the head of Madrasah following Permendiknas No. 13 Tahun 2007 about the standard of headmaster or head of the Madrasah can plan the needs of facilities/facility and school infrastructure with the purpose of school development. It is also in line with the research of Apriyanti (2018), which is the principal as a planner and manager of resources related to all activities in the school. Like planning facilities and infrastructures in school through school meetings.

The procurement of facilities and infrastructure is a continuation of the planning process that has been realized. MTs Muhammadiyah Sidomulyo performs the facility and infrastructures by buying direct goods by the price set with the proof of receipt to be booked by the school committee. Furthermore, the goods that have been bought are inserted into the inventory data of goods to be reported

and accountable. The results of this research following the explanation of Bafadal (2003:30) stating that to improve the quality of education, the school must carry out the procurement of facilities or infrastructure. Procurement of facilities and infrastructures in MTs MUhammadiyah Sidomulyo not only obtained from the budget application to Kemenag but also can be through the help of the student Guardian.

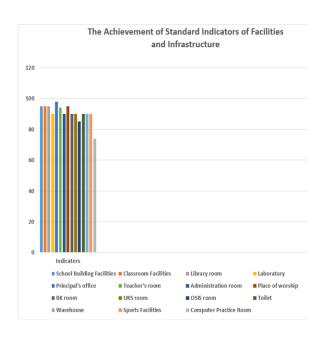
Management of facilities and infrastructures in MTs Muhammadiyah Sidomulyo is based on Permendiknas No. 13 the year 2007, stating that the standard of the head of Madrasah serves as the manager of facilities and infrastructure in the school. The purpose of the management of these facilities and infrastructure to develop the quality of education in the school. Furthermore, the facilities and infrastructure indirect distribution, such as books directly distributed to the teachers concerned, the laboratory equipment directly placed in the labor space and sports equipment or other distributed in place. This is in line with Gunawan (2010:144) explaining that in the school environment the distribution process of goods adapted to the needs of teachers and schools in teaching and learning activities. Distribution is given at the beginning of the semester and accountable to the recipient so that it can be optimally utilized in improving the quality of education at MTs Muhammdiyah Sidomulyo.

The use of facilities and infrastructures in MTs Muhammadiyah Sidomulyo is by the prevailing provisions. All the tools have been placed in use according to their functions. Αll parties the Muhammadiyah Sidomulyo keep good facilities and infrastructure owned. Items that have been damaged or unfit will be made a report for deletion. This is in line with Prastyawab (2016) stating the removal of facilities and infrastructures Memeprhatikan some of the following: 1) items that are old and severely damaged, 2) Maintenance costs are not balanced with the use, 3) if repaired costs Larger, 4) items that do not fit the present needs. Furthermore, in the use of facilities and infrastructures of MTs Muhammadiyah Sidomulyo have noticed two important things, namely effectiveness and efficiency to improve the quality of education in the school. This is in line with the research results of Darmastuti and Karwanto (2014) which said that the use of facilities and infrastructure should be used to achieve educational objectives in an effective and efficient school. Maintenance of facilities and infrastructures in MTs Muhammadiyah Sidomulyo conducted by all parties, namely by using the facilities and infrastructure in good and careful.

Maintenance of goods that are like media learning tools and laboratory devices are nourished by special officers. Every finished use of the goods in return to the original place, so that the goods are ready-made. Maintenance is aimed at the goods that are not easily damaged and can be used for a long period. If there is minor damage, it will be in service. Good maintenance will make the learning process undisturbed as it goes well and is fun. All parties in schools such as principals, teachers, and students play an active role in maintaining facilities and infrastructures in MTs Muhammadiyah Sidomulyo. The maintenance is done periodically such as buildings and media tools learn.

Management Indicators Good Infrastructure to Improve Quality

Based on the results of data analysis on the achievement of the standard indicator of facilities and infrastructures in MTs Muhammadiyah Sidomulyo showed that there are 15 indicator profiles analyzed by default according to Permendiknas No. 24 Tahun 2007 namely building facilities School, classrooms, library space, laboratory room, headroom, teacher room, administration room, place of worship, counseling room, UKS room, student organizational room, toilet facility, warehouse facilities, sports facilities, space Computer facilities practice. achievement of 15 indicators is shown in the picture below:



Picture 1. The achievement of standard indicators of facilities and infrastructure

The picture above shows that the facilities and infrastructures Muhammadiyah Sidomulyo already meet the standard. This is evident from the indicator 1 that the school building has a level of achievement 95% it shows that the building in MTs Muhammadiyah Sidomulyo is good. Indicator 2 is a classroom facility that has a 95% achievement level, visible from the number of classes that already meet the standards in teaching and learning. Indicators 3 and 4, namely library and laboratory rooms, also have a 90% achievement rate, where students can read and utilize the facilities in the library as well as laboratories to broaden students' insights at MTs Muhammadiyah Sidomulyo. Indicator 5 is the headroom that has a 98% achievement rate, it the shows completeness that exists in the school headroom such as a working chair, desk, chair and desk, cabinets, board statistic, a

symbol of the state, trash and wall clocks, etc. The 6th Indicator is a teacher room that has a 94% achievement rate. The 7th indicator is the administration room showing the achievement of the indicator 90%, the administration room has also fulfilled the standard of facilities and infrastructure, the administration room has chairs and desks, cabinets, board statistic, typewriter/computer, printers, filing cabinets, safes, telephones, wall clocks, trash cans, etc.

The next indicator 8 is the means of place of worship the level of achievement of the indicator 95%, visible from the mosque and the tools of prayer is also a place of ablution that has been adequate MTs Muhammadiyah Sidomulvo. Indicator 9 is a counseling room that has a 90% achievement rate indicating the counseling room is adequate or compliant. Indicator 10 is the UKS space, which has a 90% achievement indicator Also, it shows that the UKS in MTs MUhammadiyah Sidomulyo is complete enough such as restroom facilities and medicines. The 11th is that the student organizational room has also fulfilled the standards, they already have room for the members of OSIs in making several activities in the school, the achievement of the indicator 85%.

Indicator 12, 13 dan 14 have the same achievement of 90%. Indicator 12 is the facility of the existing and adequate school or bathroom, the next indicator 13 namely means of warehouse or storage of goods.

Indicator 14 namely sports facilities, MTs Muhammadiyah Sidomulyo has facilities and sports infrastructures such as field, sports equipment volleyball, ball feet, basketball, equipment skills, loudspeakers, tape recorders. and avmnastics equipment. The last indicator is the indicator to 15 computer practice space, MTs Muhammadiyah Sidomluyo has an achievement rate of 74%, Indicator the computer practice room has the lowest level of reach. This shows that the computer practice room already exists adequate but still has constraints, such as lack of computer in school.

From the above explanation can be concluded that the indicator 1 to 14 has a level of achievement above 80% while the indicator 15 is the computer practice room has a level of achievement 74%. Overall it can be seen that MTs Muhammadiyah Sidomulyo already meets the standards of good facilities and infrastructure to perform the learning process and can improve the quality and quality of the school.

School Readiness to Prepare Facilities and Infrastructure to Support Learning in the Era of 4.0

The era of Revolution 4.0 is an era where technology and information are instrumental. Era 4.0 or digital revolution and technology make the occurrence of automation almost all over the field (Tjandrawinata, 2016). This makes the

177

education world must develop its potential to survive in this era of Revolution 4.0. MTs Muhammadiyah Sidomulyo has been in the process of preparing for the 4.0 era. All parties in MTs Muhammadiyah Sidomulyo should play an active role in improving the quality of education in schools, especially in the field of technology and information education. Teachers are expected to have high ability and creativity and can teach effectively. Students should be able to follow the development of this digital era to be able to connect to the machine's speed and be wise in using it.

In MTs Muhammadiyah Sidomulyo facilities and infrastructure used to deal with the era of 4.0 is adequate such as the use of computer facility, Internet network, learning media using laptops, projector, etc. However, the computer that is in MTs Muhammadiyah Sidomulyo still lacks and needs to be added again. Furthermore, media learning related to information technology in schools can support the development of technology information at school in the face of the 4.0 era. Not only students who are actively learning but teachers are also required to be able to operate the computer, process data using computers and make innovations about information technology in schools is of course supported by all existing infrastructure. This is in line with the research of MUstofa (2007) stating the process of making professional teachers must be supported by all existing facilities to produce skilled and competent teachers. In MTs Muhammadiyah Sidomulyo teachers still, I has not mastered the technology and information so it should be given training in the training. Teachers should also be prosecuted in the use of technology and information so as not to miss the 4.0 era.

MTs Muhammadiyah Sidomulyo in preparing to face the 4.0 era increases the quality of its human resources by following the policy of adaptive and responsive educational institutions, then restyle with the curriculum Applicable learning. MTs Muhammadiyah Sidomulyo also improves the quality of facilities and infrastructure in the school. Improve learning media in using technology and information so that students can compete in this 4.0 era. The school will improve the utilization of technology in education that is by using Information Communication Technology (ICT) based management. Although there is still a lack of facilities and infrastructure in the field of technology MTs MUhammadiyah Sidomulyo is expected to follow the development for the 4.0 era and always improve the quality of learning to be able to compete in the future and create Competent outputs.

DISCUSSION

The results of the study showed that MTs Muhammadiyah Sidomulyo has facilities and infrastructure to support the teaching and learning process. The learning process will be more effective and efficient and able to improve the quality of the school. Teachers will be helped by the means that

can support them in teaching as there is a projector to teach, so teaching is more fun and easy. MTs Muhammadiyah Sidomulyo already has a good management Indicator in the planning of facilities and infrastructure every year. In the face of Era 4.0, the school principal will plan other learning computer and media requests to support the teaching and learning process. Facilities and infrastructures that are fulfilled will support the quality of education. Furthermore, in the management of school facilities and infrastructure that all parties are involved in maintaining good facilities and infrastructure. **Facilities** and infrastructures by **MTs** used Muhammadiyah Sidomulyo following the terms. For the maintenance of all those who have been carried out maintenance both long and short term. Such as building painting and maintenance printer or computer. Maintenance for certain items is done by experts.

A good Indicator in improving the quality of the school has been by MTs Muhammadiyah Sidomulyo where the achievement of the indicator of the entire facility and infrastructure reached 90.7%, which means that the school meets the standards in fulfilling the facilities and Infrastructure in schools. With good facilities and infrastructure is expected MTs Muhammadiyah Sidomulyo able to follow the development of the 4.0 era in the future. The era of 4.0 information technology will develop and all fields will

utilize technology as supporting in improving quality So also with MTs Muhammadiyah Sidomulyo who have prepared themselves to not miss with the advancement of technology and information.

Head of MTs Muhammadiyah Sidomuyo trying to improve all the quality in the school is not only the means and infrastructure but also its human resources such as training on teachers in managing the technology and can apply it in the process Learn to teach. This is because there are still teachers who can not manage the technology, such as there are still who can not use the projector or While the current data computer. processing in schools are already using databases so that they are required to learn to use a computer or laptop. Teachers are also expected to be more active in knowing the technological developments of today. A competent teacher will be able to produce students who achievers and quality. Of course, this will make MTs Muhammadiyah Sidomulyo a quality school.

CONCLUSION

Based on the results of the research and management discussion of facilities and infrastructure of MTs Muhammadiyah Sidomulyo Gorontalo as a whole is following the prevailing provisions. Planning the procurement of facilities and infrastructure is already running by what is expected and

been following the has instructions Permendiknas 24 years 2007 about the standards of facilities and infrastructures for Madrasah Tsanawiyah (MTs). Management and maintenance of facilities and infrastructures in MTs MUhammadiyah Sidomulyo also have been running well following the provisions. MTs Muhammadiyah Sidomulyo shows the overall level of indicator achievement is 90.7%. The results showed that MTs Muhammadiyah Sidomulyo has fulfilled the level of achievement of standard facilities and infrastructure.

MTs Muhammadiyah Sidomulyo in preparing to face the era of 4.0 is said to be able to follow and compete in the world of education in improving the quality of its school. With the era of 4.0, this MTs Muhammadiyah Sidomulyo will improve its facilities and infrastructure also its human resources. All adequate and fulfilled equipment is expected to improve the quality of education in MTs Muhammadiyah Sidomulyo better yet in the future.

ACKNOWLEDGMENTS

We would like to thank the Faculty of Graduate Professor Ahmad Dahlan who has been assisting in this research. We are also grateful to MTs Muhammadiyah Sidomulyo who has permitted us to do research there.

REFERENCES

- Fattah, Nanang. (2000). The Cornerstone of Education Management. Bandung: PT Youth Rosdakarya.
- Mohamad Mustari. (2014). Education Management. Cet. I. Jakarta: The Press Eagle, 2014. h. 119.
- Husaini Usman. (2013). Management: Theory, Practice, and Educational Research. Jakarta: Earth Alphabet.
- Echols, John M. dan Shadily, Hassan. 2005.

 English-Indonesian Dictionary.

 Jakarta: Gramedia.
- Bafadal, Ibrahim. (2004). School supplies management. Jakarta: Earth Alphabet.
- Law RI Number 20 The Year 2003 About National Education System Chapter I Article I
- Sugiyono. 2010. Education Research
 Method Quantitative Approach,
 Qualitative, and R&D. Bandung:
 Alfabeta.
- Ruslandi dan Chaerul Rochman. (2019).

 Analysis of Education Facilities and
 Infrastructure in the Environment of
 SDN 262 Panyileukan Bandung.
 Journal of Islamic Sciences Review.
 Vol. 05. Number. 1. e-ISSN: 2460-2345,
 p-ISSN: 2442-6997.
- Hajeng Darmastuti dan Karwanto. (2014).

 Management of Facilities and
 Infrastructure in Efforts to Improve
 Learning Quality in Computer
 Engineering and Informatics
 Department at SMK Negeri 2
 Surabaya. Inspiration for Education

- Management Journals. Vol. 3 Number 3. Page 9-20.
- Ulpha Lisni Azhari dan Dedy Achmad Kurniady. (2016). Education Financing Management, Learning Facilities, and School Quality. Journal of Education Administration. Vol. XXIII. Number 2.
- Nia Fauziah. (2010). Implementation of Education Facilities and Infrastructure Management at SMPN 227 South Jakarta. Faculty of Tarbiyah and Teaching Sciences. The State Islamic University of Syarif Hidayatullah. Jakarta.
- Ahmad Fauzan. (2018). Management of Facilities and Infrastructure of Pondok Pesantren Shuffah Hisbullah Natar Selatan Lampung. IQRA Journal. E-ISSN 2548-7892. P-ISSN 2527-4449. Vol. 3. Number 1. Juni 2018. DOI: http://dx.doi.org/10.25217/ji.v3i1.240.p.249-276.
- Amit Kumar Singh and Mili Singh. (2014).

 Role of Infrastructure in Teacher
 Retention: A Case Study of Kendriya
 Vidyalaya Aizawl. International
 Journal of Organizational Behaviour
 & Management Perspectives.

 Volume 3, Number 1, January –
 March 2014. ISSN (P):2279-0950,
 (O):2279-0969.
- Shuaibu Musa Rafindadi. (2016). The Impact of Infrastructure on the Quality of Primary Education in Katsina Zone Katsina State, Nigeria. International Journal of Research

- Development, Volume 10, Number 1, December, 2016: ISSN 2141-1409.
- Regulation of the Minister of National Education of Republic of Indonesia Number 24 The Year 2007 about Standard Facilities and Infrastructure for Elementary School/Madrasah Ibtidaiyah (SD/MI), Junior High School/Madrasah Tsanawiyah (SMP/MTs), and High School/Madrasah Aliyah (SMA/MA).
- Badafal, Ibrahim. (2008). School Supplies

 Management. Jakarta: Earth

 Alphabet.
- Yamin, H. M. dan Maisa. (2009). Classroom Learning Management: Strategies to Improve Learning Quality. Jakarta: Gaung Persada Press.
- Bandono, W. A. (2014). Management of Facilities and Infrastructures in State Elementary School 01 Tohudan Karanganyar. Article on publication of Education Management Program of the Muhammadiyah University of Surakarta.
- Apriyanti Widiansyah. (2018). The Role of School Principal in Improving Facilities and Education Infrastructure in SDIT Insani Islamia Bekasi. Horizon-Journal of Humanities. Vol. XVIII, Number 1. p -ISSN 1411-8629, e-ISSN:2579-3314.
- Prastyawan. 2016. Education Facilities and Infrastructure Management. Islamic Studies Journals. 6 (1), 1-14. ISSN: 2088-2556.
- Tjandrawina, R.R. (2016). Industry 4.0: Industry Revolutions of the Century

IJEMI e-ISSN: 2716-2338 ■81

and its Influence on Health and Biotechnology. Journal Medicines, Vol 29, Number 1, April Edition.