Learning Quality Improvement Management Model for Elementary School Teachers

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Abstract:
This paper aims to describe; 1) the weaknesses and strengths of learning in SD Muhammadiyah based on the challenges of technological disruption, 2) the need for teachers to improve the quality of learning, 3) the management model for improving the quality of learning that is appropriate to be applied by teachers in schools. This study uses a Research & Development design containing three main elements: 1) development model, 2) development procedure, and 3) product trial design. The development procedure goes through three stages: 1) preliminary study, 2) model development, and 3) model testing. The research results found that; 1) the weaknesses and strengths of learning at Muhammadiyah Elementary School, namely the quality of teachers is still lacking, the evaluation implementation is minimal; the design has not been implemented, the learning process is still lacking, and students lack motivation. In contrast, IT-based learning in schools has yet to be implemented. 2) Improving the quality of schools requires proper management based on the needs and challenges of the school going forward; teachers need learning modules, classifying student subject matter according to potential, and participatory learning.

Keywords: Learning Quality, Technology Disruption, Elementary Schools
INTRODUCTION

The reality of schools shows that teachers present subject matter with little attention to how students receive and process information (Irfan & Saifuddin, 2019; Masril, 2013). Teacher brings the subject matter to pay less attention to students' multiple intelligences. The teacher is the spearhead in implementing learning (Kodrat, 2019; Dani, 2020; Onde et al., 2020; Sofiarini & Rosalina, 2021). The teacher is a source of learning, manager, and facilitator of learning (Buchari, 2018; Tarihoran, 2019; Prihartini et al., 2019). Teachers must understand students' multiple intelligences to provide learning that can stimulate the development of multiple intelligences. At the same time, the teacher must also be able to present learning that accommodates all modalities, namely visual, auditory, and kinesthetic. This modality describes how students process information in the form of subject matter.

The quality of learning is not only seen from the point of view of the potential in students but also must consider the challenges of students in the present and the future (Gherheș et al., 2021; Whalley et al., 2021; McNicholl et al., 2021). Students face an era of technological disruption marked by the increasing use of information and communication technology in various fields of life, including education (Oliveira et al., 2021; Prokes et al., 2021).

According to Kuntoro (2019), management is the process of planning, organizing, implementing, directing and supervising the efforts of members of educational institutions and the use of other resources in order to achieve the goals of an educational institution. Implementing education management in schools is not only an individual task but the task of all existing school members to support each other and run everything according to plan.

Quality in the school context includes the quality of learning with the many roles of the teacher in it. Maya (2013) explained that future teachers would no longer appear as teachers (teachers) like their principal function but instead become coaches, counsellors, and learning managers. In simple terms, the quality of learning is achieved by the curriculum used, and the lesson plans the teacher has prepared. However, Sallis (2012) states as an absolute concept of quality or quality is the achievement of the highest standards that are impossible to achieve. The highest standard means the highest achievement close to the expected ideal. The definition of approaching, in this case, is towards the stated educational goals.

Improving the quality of learning implies implementing management functions in learning carried out by teachers in managing learning in the classroom (Mubarok, 2019; Siagian, 2018; Amalia, 2017). The management model implemented so far has yet to pay attention to the needs of the technological disruption era. The results of research by Salsabila et al. (2021) show that the quality of learning will be better when learning takes into account aspects of the potential and competence of students, educational content, both academic
aspects and attitude aspects, as well as content that is relevant to the current era of technological disruption.

Learning in the 21st century is required to equip students with various competencies, including critical thinking, collaboration, leadership, adaptive and agile, entrepreneurship, effective communication, analytical, and imaginative competencies (Pratiwi et al., 2019; Syahputra, 2018). The 21st century is a century of technological disruption. Technological disruption is a technological innovation which, in its application, provides many conveniences to change people’s behaviour but at the same time disrupts established habits (Flavin, 2012). Improving the quality of learning by itself must pay attention to aspects of technological disruption because there are changes in the behaviour of students and teachers related to technological innovation, especially information and communication technology.

The description above shows that improving learning quality must paying attention to students' potential, technological disruption, and attitudes that reflect students' soft skills. Principals and school supervisors must apply management to improve the quality of teacher learning. In this case, a management model for improving the quality of learning is needed for SD Muhammadiyah teachers so that learning in all SD Muhammadiyahs is of higher quality.

It is urgent to develop a management model for improving the quality of learning for SD Muhammadiyah teachers because the world of education faces increasingly solid and widespread technological disruptions. The student's potential must be processed in such a way by the teacher so that students are learning objects and subjects. In this condition, SD Muhammadiyah teachers must prioritize the attitude aspect as a soft skill indicator of the quality of learning and the academic aspect.

**RESEARCH METHODS**

A quality management model in this study needs to be developed as a form of being proactive in the era of technological disruption. This development method uses R&D design. This research uses R&D stages from Borg and Gall (in Setyawan & Fatirul, 2019). R&D design contains three main elements: 1) development model, 2) development procedures, and 3) product trial design. The development model is a management model for improving the learning quality of SD Muhammadiyah teachers. The development procedure goes through three stages: 1) Preliminary study, 2) Model development, and 3) Model trials. Product Trial Design is carried out at the model development stage consisting of expert judgment, empirical trials and extended trials.

The results of development research are not only the development of an existing product but also to find of knowledge or answers to practical problems. Sukmadinata (2017) argues that development research is an entirely appropriate strategy or method for improving practice.

The research and development process, based on the definition of the experts mentioned above, consists of four essential cycles, namely: 1) attempts to explain and examine the contextual conditions of the implementation of a current
model and examine research findings related to the model being developed; 2) develop a model based on the research findings; 3) testing the model as a product of development results; and 4) revise the cooperation model developed.

The development procedure is grouped into three stages: 1) Preliminary study, 2) Model development, and 3) Model trials. Preliminary studies were conducted to obtain initial information about the educational quality management model currently used and the needs of teachers. The methods used at this stage include interviews, observation, and documentation. Based on the preliminary study, the researcher designed a quality improvement management model in such a way with several explanations to be studied together. The development stage of this model begins with formulating skills in the era of technological disruption. This stage is developing a quality improvement model, which becomes an alternative model. Collaboration model trials are essential to development research, carried out after the model design is complete. The cooperative model trial aims to determine whether the developed model is suitable for use. The trial of the cooperation model as a model also looks at the extent to which the model made achieves the goals and objectives. At this stage, model trials were carried out twice, namely; 1) expert judgment, namely with promoters and co-promoters; 2) the second phase of trials, namely in 4 catering establishments/catering world of work (Rama Shinta Garden Resto Prambanan, Tara Hotel Yogyakarta, Karunia Catering Sleman Yogyakarta & Mount Bake Bakery Sleman Yogyakarta).

The product trial design is a trial collaboration model developed. The product trial aims to test the extent to which the model development meets the applicable criteria. This trial design was carried out to collect data used as a basis for determining the feasibility of the educational quality management model. In this case, the concerns are; 1) trial design; 2) test subjects; 3) data collection techniques and instruments; and 4) data analysis techniques.

RESULTS AND DISCUSSION

Preliminary Studies

Weaknesses and Strengths of Learning in SD Muhammadiyah

Schools under the Muhammadiyah organization generally have good management. This cannot be separated from several strengths in Muhammadiyah, including the support of the management and teachers and support from the Muhammadiyah organization. Administrators at the branch and regional levels always try to keep the elementary schools in their areas moving forward. Teachers also continue to improve the quality of learning in schools. Muhammadiyah members strongly support the school's progress by providing moral, workforce and material support which can be seen from their participation in school committees or recitations organized by Muhammadiyah.

SD Muhammadiyah students generally have good potential, especially related to motor activities. SD Muhammadiyah students are proven to be able to participate and even enjoy various motor-related activities such as sports, learning various skills and cultural arts, worship activities and other positive activities.
SD Muhammadiyah's progress must be balanced with the leadership and managerial applied by the school principal. The school principal is by his education, namely PGSD (Department of Elementary School Teacher Education) and has attended advanced Darul Arqom (leadership) training. Togetherness as a Muhammadiyah member family in managing and raising SD Muhammadiyah remains the essential capital continuously maintained and nurtured so the school can progress.

However, only a few SD Muhammadiyah still need to improve in terms of input, process and output aspects. These three aspects influence one another. Poor input will reduce and make the educational process face many internal challenges. An efficient or ineffective educational process will produce output different from expected. Conversely, to get good input, the educational process at SD Muhammadiyah must look good so that the output can meet the community's expectations, especially the parents of students.

The input aspect can be seen from the competence of teachers, students, and learning facilities or facilities. SD Muhammadiyah teachers have various competencies, from the suitability of educational background, mastery of subject matter, experience, and loyalty. Recruitment of young teachers who are highly competent and loyal to Muhammadiyah is a challenging matter. Moreover, the income or salary of an SD Muhammadiyah teacher is a little.

Inputs in the form of students, in general, are children from the local Muhammadiyah administrators or activists and the surrounding community. Society is more selective in seeing the quality of elementary school education. For the general public, enrolling children in SD Muhammadiyahs is the second choice after Public Elementary Schools, which are considered better. For Muhammadiyah administrators and activists, enrolling children in SD Muhammadiyahs has more substantial reasons, namely the belief and motivation to raise and advance SD Muhammadiyahs.

Inputs in the form of learning facilities at SD Muhammadiyah, in general, still need to be increased compared to their needs. Buildings, land areas, and main learning facilities such as tables, chairs, blackboards, and library books still need to be added. Places for the practice of worship also need to be improved. In the current era of information technology, only a few elementary schools are connected to the internet because schools do not have wifi installed.

Process aspects can be seen from the management and educational curriculum applied. SD Muhammadiyah's management is oriented towards progress, as evidenced by ideas and plans, but more plans still need to be implemented. This cannot be separated from the management of SD Muhammadiyah, with several of the limitations mentioned above. Weaknesses in SD Muhammadiyah are recognized as limitations. However, the administrators always believe that there is a way of management so that they can get around the various existing limitations. For example, by implementing a natural laboratory, namely the community itself, by inviting students to participate or take a role as citizens should. When students are trained or accustomed to mingling with the community, students will be familiar with social etiquette.
Output SD Muhammadiyah graduates are generally not left behind from a theoretical point of view, although few stand out either. However, from a non-academic perspective, SD Muhammadiyah graduates are more affluent with activity experience.

Weaknesses: The quality of teachers still needs to improve; not all of them have an educational background in elementary school teachers; quality management exists, but implementation and evaluation still need to be improved. The design still needs to be implemented, it has increased study hours, but the output still needs to be improved. The learning process still needs to be improved because the input in the form of teachers also lacks quantity and quality. SD Muhammadiyah students are less motivated to achieve academic achievement; students are indicated to be playing on mobile phones at home, while IT-based learning at school still needs to be implemented because there is no internet network support due to a lack of wifi or lack of internet quota.

The management of SD is held by the PDM (Regional Chairman of Muhammadiyah); the PDM carries out the arrangement by increasing the teacher’s welfare. There are advanced schools with enough funds; there are lagging schools with a need for more funds. PDM implements ta’awun funds, namely inter-school subsidies. PDM has the authority to manage ta’awun funds because SD teachers are appointed based on a decree on teacher appointment by PDM based on recommendations from PCM. Each teacher must attend cadre training starting from bait from 1 (basic), 2 (intermediate), and 3 (advanced). The principal must be advanced.

The Need for Muhammadiyah Teachers in Improving Quality Learning

Improving the quality of SD Muhammadiyah requires proper management based on school needs and challenges in the future. Based on the results of the preliminary study, it is known that teachers need learning modules. So far, many reference books can be used, but this makes it difficult for teachers to provide good sources of reference books. With one module, it will be more specific for the teacher to convey the subject matter.

Delivery of subject matter will be effective if children are grouped according to their potential so that the teacher focuses on those lacking. Grouping becomes difficult when there must be a consequence of being separated from one another while the number of students is insignificant. Learning will be ineffective. However, it is limited to identification to understand the diversity of student potential. In that case, it is indeed a need for teachers better to understand students’ characteristics during the learning process.

Learning at SD Muhammadiyah involves children in a participatory way, that is, students learn actively, as seen in ISMUBA, such as this tahini, congregational dhuhr prayers, as well as other worship activities, including taking, praying for people who have died, visiting sick people, calling to prayer, and reading the Koran.

Another participatory learning is by practising independence and entrepreneurship. The manifestation of this learning is inviting children to make food to sell in order to introduce children to business ventures. Related to the
world of IT, there are already Muhammadiyah Elementary School students who have taken their own initiative to create multimedia works such as blogs, flogs, and youtube.

Model Development

The preliminary study provides data on the condition of education in SD Muhammadiyah, both from the input, process, and output aspects. Preliminary studies from interviews and FGDs show that the quality of education in SD Muhammadiyahs has yet to consider the challenges of rapid communication and information technology advances. These technological advances not only help make work more accessible but also make it difficult because a technology quickly changes or replaces with a newer or more sophisticated one.

Departing from the condition of education in SD Muhammadiyah above, a management model for improving the quality of education is needed. This model focuses on four aspects of quality that are oriented towards educational outputs that are better prepared in the era of technological disruption, namely learning approaches, learning styles, student potential, and learning outputs.

Learning Approaches

The learning approach in the era of technological disruption should already apply cooperative learning. The consideration is that the skills needed in this 21st Century’s era of technological disruption are skills in communicating and collaborating (Novitra, 2021; Broo et al., 2022). Communication skills always depart from an attitude of sympathy, empathy, knowing each other, and mutual respect. Collaboration occurs when there is good communication, mutual understanding, and mutual trust (Alfalih, 2022; Jeong, 2022).

Cooperative learning can be applied to any subject because learning is learning to solve problems. A problem is not always single but related to one another, so a problem in a person is related to the problems of others. The problem of a broken motorbike is a problem for the motorbike owner and also a problem for the repairman, so when the motorbike is repaired, the owner and the repairman receive benefits. In other words, other people’s problems are also problems for individuals who see them, so individuals become concerned about other people's difficulties.

The context of learning in the 21st Century requires the presence of the teacher as a learning facilitator, a wise figure who can maintain norms and appreciate students' diversity. Teachers must realize that children in the era of information and communication technology have changed the attitudes and behaviour of students in interacting with others. Educational quality management positions the educational process as cooperative learning, where students collaborate in learning activities with the teacher as a facilitator.

Aspects of Learning Styles

Learning is a mental process that includes thinking, feeling and taking action to master and apply technology within certain limits according to the level of education. When students are familiar with sophisticated information and communication technology from an early age, then student learning styles
should follow students' abilities to access information. Sources of learning are no longer single, only from teachers or books. With smartphones in hand, students also hold sources of information, even entertainment that only includes being contaminated by information and entertainment that is appropriate for children.

The habit of children using smartphones or gadgets even for a long time has proven that children are more interested in the information presented audiovisually, live images, like real, even precisely the same in life. Learning at school should be as enjoyable as using gadgets. This is a challenge and will become a reality in the future. Learning at SD Muhammadiyah should ideally accommodate children's learning styles in the digital era. Only use information technology devices sometimes, but learning must bring up exciting experiences that are just as interesting when children are fully involved with gadgets.

Teachers, as learning facilitators, are required to be able to present learning experiences in the digital era for students. Learning appropriate to learning styles in the era of technological disruption is by providing space for students to utilize information technology in creativity. This experience will make students grow and develop according to their time, namely the era of technological disruption. Educational quality management accommodates complex student learning styles so that all students experience learning in an enjoyable totality.

**Potential Learners**

SD Muhammadiyah students, in general, are Generation Z, the generation familiar with information and communication technology since birth. This means that every SD Muhammadiyah student has the potential for self-development through information and communication technology.

Generation Z was born in 1997 - 2012 or is currently aged 10-19 years and already seldom watching television. These two generations are more numerous use Internet to seek information and entertainment (Nasrullah, 2017). Generation Z can apply all activities simultaneously (multi-tasking), such as: running social media using a cell phone, browsing a PC, and listening to music using *headsets*. Education is an effort to develop the potential of students. Thus, education quality management departs from the potential of SD Muhammadiyah students.

**Graduate Output**

SD Muhammadiyah graduates are expected to become individuals concerned about societal problems. They are called to be part of the solution by taking a quality role using their skills. The skills possessed by SD Muhammadiyah graduates are social skills, academic skills, and digital skills. Thus education quality management is oriented towards the development of social skills, academic skills, and digital skills. The educational quality management model in the disruption technology is depicted in the following Figure 1.
Assessment of Experts and Practitioners

Before the model was tried out, an assessment was first requested by education experts within the Muhammadiyah Association and also education practitioners. The results of the assessment are presented in Table 1.

Education experts at internal Muhammadiyah and education practitioners strongly agree with the quality improvement management model of development results. The reason is that the current and future educational context places digital skills as a must. The Muhammadiyah organization as an education provider has the goal of preaching amar makruf nahi mungkar that it must be able to produce graduates who are not only academically competent, but also socially competent and also digitally competent.

All areas of life today have used information and communication technology. Technology continues to develop rapidly to become increasingly sophisticated. If people do not keep up with technological developments, they will certainly be increasingly left behind. Therefore, from the beginning students need to be introduced to the ability to use technology. So, students not only use, but also make the most of it for good.

Based on the assessment of experts and practitioners, this educational quality development model is worth trying out. The trial was carried out at SD Muhammadiyah in Kalasan District.
Table 1. The Results of the Assessment of Experts and Practitioners

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Statement</th>
<th>Education Expert</th>
<th>Practitioner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Aspect</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Generation Z potential</td>
<td>The input of SD Muhammadiyah students is generation Z with its own characteristics that need to be developed</td>
<td>Strongly agree</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>b. Teacher</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) As a learning facilitator in the digital era</td>
<td></td>
<td>Strongly agree</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>2) As a guardian of the norms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Teachers are accommodating to creativity</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>c. IT Facilities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) Wifi/internet network</td>
<td></td>
<td>Strongly agree</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>2) Multimedia facilities</td>
<td></td>
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<td></td>
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<tr>
<td>Process Aspect</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>a. Learning style</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) Bring real experience</td>
<td></td>
<td>Strongly agree</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>2) Presenting experience using IT media</td>
<td></td>
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<td></td>
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<tr>
<td>b. Cooperative learning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) Train effective communication (sympathy, empathy, mutual understanding, respect, respect)</td>
<td></td>
<td>Strongly agree</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>2) Collaborative training (cooperation)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output Aspect</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Learning in order to hone social skills</td>
<td></td>
<td>Strongly agree</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>b. Learning in order to hone digital skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Learning in order to hone academic skills</td>
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</tbody>
</table>

Model Testing

The education quality development model was tested in 3 (three) Muhammadiyah Elementary Schools in the Kalasan sub-district. The trial begins with the principal as the leader and manager, conveying the school's desired quality, namely equipping students with social skills, digital skills and academic skills. Various skills in the 21st Century still place humans as the main actors so that people who respect human dignity will still have a higher place than others. Thus social skills in technological disruption are characterized by positive attitudes and behaviour towards others. The four aspects of social skills are cooperation, empathy, caring, and the ability to control oneself.

In order to achieve social skills, schools strengthen social worship activities and increase activities that require cooperative attitudes. Social activities include visiting sick people, taking, and praying for people who have died. Social skills are also achieved with habits such as smiling, greeting, greeting and shaking hands whenever you meet the teacher. Activities requiring a cooperative attitude are also shown in learning, including extracurricular activities. One activity is inviting students to work together to make a valuable product for others so that it sells well. In this aspect, the perceived drawback is allocating more time so that several activities intended in the quality improvement model can be carried out. Because of that, it is necessary to organize...
the steps and use of technological instruments to be more efficient, including using digital technology and developing digital skills.

Digital skills are realized by using gadgets in social activities and conducting additional online learning through gadgets in classes V and VI. The absence of wifi in schools makes online learning expensive. Some students are happy, but few are silent or passive; online learning is a burden. Some students are very familiar with gadgets, so they are happy because they can use them in learning activities. During learning, the teacher allows students to bring gadgets as learning resources. In this case, the teacher provides ways to use gadgets to explore information on learning material.

Academic prowess is sought by increasing study hours, using a cooperative approach, and presenting learning materials by accommodating three student learning modalities: visual, auditory, and kinesthetic. Teachers work extra in conveying subject matter because they have to get around the limitations of learning facilities. The way the teacher makes natural objects as educational aids or students are invited to a place in the surrounding environment where objects are related to learning. In other words, the natural surroundings as learning facilities or media. This method aligns with efforts to achieve social skills because students are conditioned to interact with the social environment around the school.

The quality of education is measured by how the attitude of students toward using information technology as an instrument to achieve academic skills and social skills. In this case, digital skills are essential in establishing social communication with other people but using direct communication skills. Information technology and gadgets are positioned as a means of obtaining educational information that supports academic achievement. The quality of education at SD Muhammadiyah is improving when it can produce students with social, digital, and academic skills.

Final Product Revision and Discussion

The educational quality management model that is oriented towards the era of technological disruption places the implementation of education in elementary schools as the foundation for students to embed the attitude that information and communication technology, as in gadgets, is an instrument that must be mastered and utilized to achieve social skills and academic skills. An important point that needs to be revised in this model is the need for practical modules and quality assessment instruments that place indicators of social skills, digital skills, and academic skills.

Departing from the input in testing the model and indicators of social skills above, the model development education quality management includes practical modules covering the following points; 1) How to train students to hone social skills, 2) How to train students to be able to control themselves, 3) How to train students to use gadgets wisely, 4) How to train students to use gadgets for academic needs, 5) How to study effectively in the digital age.

Education quality management in the era of technological disruption places social skills, digital skills, and academic skills as the main aspects of measuring the quality of education. Social skills are learning social behaviour
that allows a person to interact with others by giving positive responses and avoiding negative responses (Wasito & Indrijati, 2017). Soft skills are also lacking in controlling emotions, having difficulty understanding the feelings and desires of other people, and needing to be more skilled in solving social problems.

Cooperative learning can be an alternative intervention to improve social skills (Indrastroeti & Mahfud, 2015; Matchacheep, 2019; Mendo-Lázaro, 2018; Camacho-Minuche, 2021; Grenier, 2019; Montoya, 2020; Kriswintari, 2018; Öztürk, 2019; Espinosa, 2021). According to Gresham (2016), social skills can be divided into five aspects, namely: (1) cooperation, behaviours such as helping others, sharing materials with colleagues and obeying rules; (2) Assertion, starting behaviour like requesting others for information and behaviour that is a response to other actions such as responding to peer pressure; (3) Responsibility, behaviour that shows the ability to communicate with adults and concerns about one's property; (4) Empathy, behaviour that shows concern for feelings of maturity in the group; and (5) self-control, behaviour that appears in conflict situations such as responding appropriately to teasing or corrective feedback from adults.

CONCLUSION

Based on the results of this study, schools under the Muhammadiyah organization generally have good management. This cannot be separated from several strengths in Muhammadiyah, including the support of the management and teachers and support from the Muhammadiyah organization. SD Muhammadiyah's progress must be balanced with the leadership and managerial applied by the school principal. However, there are not a few SD Muhammadiyah that are still lacking in terms of input, process and output aspects.

The learning approach in the era of technological disruption should already apply cooperative learning. The consideration is that the skills needed in this 21st Century's era of technological disruption are skills in communicating and collaborating. Educational quality management positions the educational process as cooperative learning, where students collaborate in learning activities with the teacher as a facilitator. Learning appropriate to learning styles in the era of technological disruption is by providing space for students to utilize information technology in creativity. SD Muhammadiyah students, in general, are Generation Z, the generation familiar with information and communication technology since birth. The skills possessed by SD Muhammadiyah graduates are social skills, academic skills, and digital skills.

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