

The Implementation of Total Quality Management in the Post-Pandemic Instructional Development: A Case Study at SMA Muhammadiyah 25 Tangerang Selatan

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Abstract. The model for implementing the Total Quality Management concept in learning at SMA Muhammadiyah 25 Pamulang is the aim of this study to describe conditions in the pandemic era, which can be used as examples of subsequent implementation in the post-pandemic period. This study uses a qualitative approach with a multi-site study design. The research informants included school principals, the School Education Quality Assurance Team, and teachers. Observations, interviews, and documentation are used in data collection techniques. The component analysis is used in data analysis. This study shows the findings that the application of the Total Quality Management concept at SMA Muhammadiyah 25 Pamulang during the post-pandemic period was carried out properly using online and offline modes and involved all elements in the school. By implementing TQM, the school has positioned itself as one of the best schools in Indonesia. South Tangerang. Good practice during this pandemic can be material for continuing TQM at this school in the post-pandemic period.

Keywords: Total Quality Management · Instructional · Development · Post-Pandemic

1 Introduction

The post-pandemic learning process has problems due to students facing lessons through online learning, so it affected aspects of the students themselves. This is in line with the results of research suggesting that various aspects have changed due to the COVID-19 pandemic in the world of education [1]. This change requires schools to adapt and continue the rest of the semester.

This drastic change requires great efforts to maintain the quality of learning outcomes. It is a must for an educational institution to implement Total Quality Management (TQM). The focus of this research is more on the implementation of TQM at SMA Muhammadiyah 25 Pamulang, South Tangerang.

The implementation of TQM is undertaken by educational institutions and it has involved elements of the school, including teachers. While the control is carried out by

the school management, namely the principal and his deputy. This is in line with the research results asserted that the principal, staff, and teacher council jointly built management information for the system in physical and non-physical aspects and supported the implementation of a school quality culture [2].

Various studies reveal that principals and teachers are involved to encourage continuous improvement it is necessary to develop the vision and mission of the school, encouraging teachers to work in teams. Principals also collaborate with teachers to achieve school goals, establish school committees to improve teamwork among staff, and encourage interpersonal relationships with teachers to build a healthy team spirit in schools. School also collaborates with the ministry of education in organizing teacher training programs to renew the self-development [3].

The success of an educational institution's quality of education is improving and certainly adjusts to the educational institution's needs. This is in accordance with the picture revealed in the research results that one of the decisive factors for the success of the study, namely quality culture is encouraged so that there is an increase in awareness of continuous improvement in shaping policy. The process of aligning and achieving a balance between total quality management and the changes required to continue this form of continuous improvement [4].

Quality is the goal of every human since the beginning of life. Quality forms strength and becomes an inspiration for humans to move on to better things. Teachers are individuals who shape the character of students and have high demands and needs every hour. There are differences in perceptions between female teachers and male teachers regarding TQM in the education [5].TQM applied in educational institutions has a relationship with the quality of teacher education [6].

The process of implementing TQM requires commitment and teamwork. The implementation of TQM quality improvement there is a role in post-pandemic learning so that students can adapt to learning conditions and materials. This is consistent with research findings which reveal that with total commitment, teamwork, and effective communication applied in educational administration the quality of learning has a big role in the improvement process [7].

The implementation of TQM often faces challenges and problems. The major challenges schools face in implementing TQM include ineffectiveness of leadership, insufficiency of funds and resources for development, disobedient employees, fund unavailability, inadequateness of leadership commitment, the ineffectiveness of planning, political intervention, and disreputable teacher morale and status [8]. Meanwhile, challenges in the post-pandemic period occurred because the administrator of educational institutions tried to adapt in all aspects to maintain school quality.

The application of TQM also has time efficiency compared to field studies conducted in detail at educational institutions. Another challenge faced in the implementation of TQM is through various relevant methodologies, especially in the scarcity of communication technology aspects and insufficient financial and physical resources. This condition requires a new paradigm such as the application of hybrid edutainment; increasing the role of the TQM Team in decision-making in educational institutions; carrying out

important programs on quality assurance and improvement methods, supporting a culture of collaboration and interactivity between members of educational institutions; and advocating the establishment of a regional quality management network [9].

Other challenges in implementing TQM, include the lack of communication between departments, lack of deputy leadership authority, lack of teacher attention to student market needs, and unclear customer identification [10]. The application of TQM also requires a leadership role so that it can affect the level of implementation of TQM in the world of education.

Furthermore, TQM can be successfully implemented only if it is put into a prevailing learning organization and a sufficient understanding of transformational leadership that has a positive and significant influence on the TQM practice [11]. The TQM implementation in schools is effective in building teachers' perceptions of the practices of total quality management in schools. Through TQM training, they can equip school managers with more realistic practice assessments and quality improvement in their schools [12]. Regarding the explanation above, the researcher is interested in conducting research related to the application of TQM in post-pandemic learning at SMA Muhammadiyah 25 Pamulang, South Tangerang.

2 Method

This study was undertaken using a descriptive qualitative research approach with a case study type. This research attempts to describe the implementation process of TQM in Post-Pandemic Learning Development at SMAM 25 South Tangerang. The researcher became the source of the instrument, the direct data collector. Data collection in this study was carried out through observation, interviews, and documentation. Data obtained in data collection was then analyzed until the research was declared complete.

3 Result and Discussion

SMAM 25 South Tangerang is one of the private high schools in South Tangerang which is under the guidance of the South Tangerang Regional Muhammadiyah Leadership. This school is a private school that deserves to be reckoned with in the South Tangerang area. Based on the quality report on the results of the 2019 national-level mapping of school quality, it is known that the quality of this school is above 6.90 on a scale of 7, except for the standard of infrastructure at 6.09 and the standard of educators and education staff at 5.78. These figures are above the average for high schools in South Tangerang City, Banten Province, and even nationally. Figure 1 below showed this achievement.

The total quality management process of learning at SMAM 25 South Tangerang was carried out systematically following the cycle of the internal quality assurance system (IQAS) which was introduced by the Ministry of Education and Culture in 2016 via Regulation no 28 of 2016 of the Minister of Education and Culture about the Primary and Secondary Education Quality Assurance System [13]. This system applies at the primary education level: elementary and junior high schools as well as secondary education: senior high schools and vocational schools. This process is carried out to ensure that all processes can run following applicable standards and regulations (Fig. 2).



Fig. 1 Quality Achievement of SMAM 25 South Tangerang in 2019. Source: School Quality Report Card (Ministry of Education and Culture, 2020)

The steps in this cycle begin with standard setting, quality mapping, planning, implementation, and auditing or evaluation. As a form of total quality management, this process is followed by all elements of the school in an integrated and integrated manner. The application of this cycle is the development of a quality management system with the plan, do, check, act cycle introduced by W. Edward Deming [14].

The implementation of TQM in education at SMAM 25 South Tangerang can be divided into two paths, namely the learning quality control path and the learning development path. The quality control path consists of standard setting, quality mapping, quality supervision, and evaluation of learning implementation. This quality control is carried out by school leaders assisted by the School Quality Assurance Team (SQAT). Meanwhile, the learning development path is carried out with the steps of learning planning, implementing learning activities, and learning evaluation. The development of

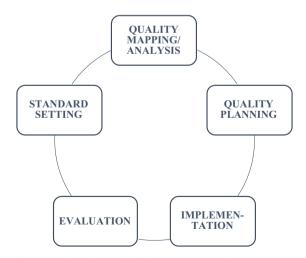


Fig. 2 Mechanism of Total Quality Management in Education Units

this learning is carried out by teachers under the supervision of the Vice Principal for Academic Affairs.

During the pandemic of Covid-19, since the 2020/2021 school year, schools have continued to use this system in developing their learning. All school members are actively involved in carrying out this process to ensure the quality of the process and the outcome of learning. Of course, due to various limitations due to the implementation of work-from-home and learning-from-home policies, various modifications have occurred in their implementation. In terms of the government's curriculum, it frees schools to develop their curriculum, use the applicable curriculum with modifications, or continue to implement the full applicable curriculum.

The total quality of instructional management at SMA Muhammadiyah 25 South Tangerang begins with setting standards. The standards used by this school use national education standards as they apply in all schools in Indonesia. These national standards along with the national curriculum are translated into the school curriculum. Even though they were administered the freedom and it has not used the 2013 Curriculum in full, the teacher council and parents of students agreed to use the 2013 Curriculum in its entirety. This decision was taken with the consideration that although various obstacles limit the movement of schools, the quality of student learning outcomes must still be the main consideration. In addition to using the national curriculum, this school adds the standards set by the Muhammadiyah Organization for all Muhammadiyah Universities which are outlined in the Islamic Religion, Kemuhammadiyahan, and Arabic Language (ISMUBA) Curriculum document. At this standard-setting stage, SQAT studies all applicable standards and studies recommendations from monitoring and evaluation results on the implementation of quality compliance for the 2019/2020 academic year.

With the reference to the established standards and recommendations from the 2019/2020 monitoring and evaluation results, quality mapping activities were carried out in June 2020. This quality mapping was carried out by SQAT by involving all elements of implementing learning and other supporting elements.

Mapping is carried out using the 2019 quality report card, recommendations on the results of quality supervision by supervisors in the 2019/2020 school year, as well as the results of self-evaluations by teachers regarding learning performance for the 2019/2020 school year. All these inputs were analyzed and considering the pandemic conditions, recommendations were made for program activities for the 2020/2021 school year.

The most important recommendation related to learning from the results of this mapping is that each teacher makes an effective and efficient online learning plan. Another recommendation is that each teacher plans, implements, reports, and follows up on learning outcomes assessment during a pandemic. These recommendations are then used as input for the stages of compiling a quality compliance plan.

Regarding the recommendations from the quality mapping results, each teacher plans to fulfill the learning quality. This activity was executed by teachers under the supervision of SQAT and the Vice Principal for Academic Affairs. In this stage, the teachers plan the implementation of learning and the implementation plan for assessing learning outcomes. The results of this activity are the learning syllabus, learning implementation plans, and learning evaluation plans. Meanwhile, SQAT and the Vice Principal for Academic Affairs prepared to monitor, evaluate, and supervise the learning activities plan. Regarding plans

to improve school quality, especially during the Covid-19 pandemic, schools will carry out the following activities:

- 1. Supervision the implementation of online learning, and
- Socialization, technical guidance, and monitoring of the implementation of the assessment of learning outcomes during a pandemic according to national education standards.
- 3. Training on online learning applications (Microsoft Team)

Starting from the 2020-2021 school year in mid-July 2020, all the quality fulfillment plans that have been prepared will be implemented. Learning activities including assessments are carried out from home online. Learning interactions are carried out using the Microsoft Teams application. The use of this application is based on the consideration that the application can meet the needs of distance education completely. The application has video conferencing features, small group discussion rooms, document sharing, collaborative space, and other distance learning support features. To ensure that teachers can manage online classes well, at the implementation stage of quality fulfillment, efforts are also made to improve the ability of teachers in this field. The teacher's capacity-building activity was carried out by carrying out three activities according to the previously prepared plan. This activity was carried out with a limited mix mode of faceto-face and online learning. The provision of materials and discussions are carried out online, while the practices are carried out with limited face-to-face meetings by implementing the health protocol. To ensure that learning activities, teacher capacity building, and extra-curricular activities run well, these learning activities are monitored regularly by SQAT and school leaders. The monitoring of learning activities is implemented by asking the teacher to report their activities after the end of the activity accompanied by documents used during learning and reinforced with screenshots of online learning activities. Besides, the Principal and Vice Principal for Curriculum also witnessed online learning activities by entering online classes. Based on the results of this monitoring, school leaders supervise learning activities so that the quality of learning has increased.

As with other activities in IQAS, evaluation activities were also carried out in the 2020/2021 school year. These evaluation activities were executed twice a year at the end of each semester. This evaluation activity is also undertaken through an online approach. The results of this evaluation are used for improvements to ongoing activities and recommendations for quality improvement in the 2021/2022 school year.

The strict results of the implementation of TQM have encouraged learning outcomes at SMA Muhammadiyah 25 South Tangerang during the Covid-19 pandemic still showed good results, even though they experienced a slight decline. This decrease occurred due to various obstacles when starting work and learning from home due to the outbreak of the Covid-19 pandemic. This decline was not only experienced by this school but also experienced by almost all schools throughout Indonesia. This decrease occurred in all standards, except for the standards of educators and education personnel which increased from 5.78 in 2019 to 6.65 in 2020 [15]. Even though it has decreased, this achievement is still above the average for the City of South Tangerang, Banten Province, and even nationally.

This decline is understandable because at the beginning of the pandemic all parties suddenly carried out online activities that they had never experienced before. Even though

they had previously gone through training on using online learning applications, teachers still experienced obstacles. Likewise with the students. Another obstacle is related to the infrastructure needed for online learning. Even though teachers have been given training, they do not necessarily run the applications that have been trained. Another obstacle was the availability of internet quota, which was initially very limited. However, over time these obstacles can be overcome little by little so that learning outcomes do not experience a significant decrease. In the 2020 quality mapping carried out at the end of 2020/2021, it was found that the quality achievements of SMAM 25 South Tangerang had decreased slightly compared to 2019/2020 but were still above the 2018/2019 achievements. In Fig. 3 below, we can see the quality achievements of SMA Muhammadiyah 25 South Tangerang in 2020/2021.

Dealing with the experience of implementing TQM during the Covid-19 pandemic, many lessons can be understood to be applied in the post-pandemic period. One of them is good online communication in learning in the field of quality control of learning in schools. In the field of learning, for example, schools can implement blended learning models, namely a mixture of online and face-to-face learning (*Buku Model Blended Learning*, n.d.). For the delivery of learning materials, online learning applications can be used, while discussions are carried out face to face. Thus, learning can take place more effectively by utilizing resources, time, and energy efficiently.

During the process of implementing TQM, an institution experienced challenges and problems. Therefore, educational institutions must be supervised by competent authorities in adopting the TQM philosophy. Specific in-service professional training programs regarding the implementation of TQM should be introduced so that school principals can be equipped with modern techniques for the successful implementation of TQM in school. In addition, sufficient funds and infrastructure must be provided for each school based on the priority [8].

The learning process contained in the implementation of TQM, of course, is still making improvements at any time to have maximum results. This is consistent with research findings which show that in educational institutions that implement TQM there



Fig. 3 Quality Achievements of SMA Muhammadiyah 25 South Tangerang in 2018–2020. Source: School Quality Report Card [16]

is an increase that affects the level of TQM practice in these institutions [8]. In the implementation of TQM, there is a leadership policy as a total management approach (total quality approach) in education. The application of TQM can consider the characteristics of the existing system following the intended approach or the extent to which the existing system will fulfil the main needs. The total quality management approach should also be considered before introducing any policy in education. Therefore, the total quality management approach and implementation requirements are discussed by setting these: arguments in the education [17].

Following the results of the explanation above, the researcher has concluded that the implementation of total quality management influences the effectiveness of school management. Improving school effectiveness must consider the implementation of TQM which will then be improved by implementing good school governance. Modeling correlates TQM and school governance with increasing the school management effectiveness [18].

TQM is a concept that every educational institution can achieve through various factors of critical success. This concept is one of the necessary steps to maximize the success of quality improvement in educational institutions [19]. The process of high-level TQM practice can be reflected in the educational institutions participating in the research. Appropriate TQM results, customer satisfaction, continuous improvement, leadership, resource management, and supplier quality are the keys to quality improvement efforts. Management of education and training, work culture and environment, performance assessment, and feedback are key in their preference order [20].

Failure in the TQM process comes from the internals of an educational institution. This is shown in the survey results which suggest that the causes of failure are students, teachers, and administrative staff as well as weaknesses in electronic-based services. Information and communication technology (ICT) and TQM services contribute to the quality of electronic-based administrative services in an educational institution [21].

The findings of the research have shown that the factors affecting the effectiveness of the education institutions' management are the implementation of good school governance and TQM through the addition of strong and firm leadership criteria in human resources. In improving TQM, the key factor is the biggest driving force before improving quality and developing strategies that can help improve the effectiveness of the school management [18]. The implementation of the integrated curriculum is carried out by conducting continuous program assessments [22], as well as conducting collaborative and other methods to induce in educational institutions that can be explored and studied formally [23].

The implementation of TQM is attempted to conduct the process of updating and improving educational institution programs. Thus, students can evaluate themselves based on the competencies that must be possessed so that they become quality students [24].

The main problems in implementing quality improvement affected in educational institutions are the lack of qualified experts at all levels; the lack of accountability in each leader; the changing nature of teacher education; the ineffectiveness of the teacher licensing program; and the lack of an education budget and the problem of using this limited budget [25].

Based on the presentation of the results and discussion, the authors conclude that the achievement of the application of TQM in an institution in the learning process requires collaborative efforts of various parties within the institution so that the hope of improving the quality of post-pandemic learning continues to achieve what is expected.

4 Conclusion

The implementation of Total Quality Management in developing learning at SMA Muhammadiyah 25 South Tangerang during the Covid-19 pandemic has formed good results. This biggest obstacle during the pandemic has been overcome because of the commitment of all parties to maintain quality. As a result, amid these big obstacles, the school can still maintain its quality performance so that it remains a school to be reckoned with in South Tangerang. Based on good practices during the pandemic, the implementation of Total Quality Management during the post-pandemic period can almost certainly improve quality performance at SMA Muhammadiyah 25 South Tangerang.

The principle that should be adhered to in implementing TQM in learning development is continuous improvement and focus on the customer. If it is viewed in the context of learning, the customers are students. Continuous improvement is carried out continuously, carried out with full commitment, involving all components, and measuring what has been done by college leaders, teachers, and students. SMA Muhammadiyah 25 South Tangerang is one of the schools which in the implementation of learning development applies TQM. The implementation of TQM at SMA Muhammadiyah South Tangerang is one of the best among other schools. The concept applied in its development is continuous improvement starting with setting standards at the beginning and ending with setting new standards.

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