



Hybrid Supervision System for Madrasah in the Post Covid-19 Era

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Abstract. This research is motivated by the demands of the Industrial Age 4.0 and post-pandemic COVID-19 around the world in recent years is a package of problems that demand changes to the order of life. Humans must adapt to new habits, including in the world of work. The pandemic has also resulted in a shift in the pattern of education. This educational transformation process also caused the role of madrasa supervisors to change and to adapt to a new, more advanced educational system. This educational transformation process also caused the role of madrasa supervisors to change and to adapt to a new, more advanced educational system. The existence of virtual learning is no longer seen as just a way to ensure the continuity of learning during the COVID-19 pandemic but demands the need to accelerate the adaptation of Indonesian education to global demands in the digital era where the Internet of Things is becoming a phenomenon. that must be faced and even followed in the world of education. This research aims to develop a hybrid supervision model. The method used is research and development (R&D) using the ADDIE model, consisting of five stages: analysis, design, development, implementation, and evaluation. This study aims to develop a hybrid supervision model. The method used is research and development (R&D) using the ADDIE model, which consists of five stages: analysis, design, development, and implementation. Implementation) and Evaluation (Evaluation) because this research and development model is more rational and complete than other models.

Keywords: Hybrid Supervision System, Madrasah, the Post Covid-19 Era

1 Introduction

So far, the quality of teachers has often been used as the root of the problem of the low quality of education, even though the quality of teachers is also very dependent on the leadership factor of the madrasa head and the supervisory process of the madrasa supervisor in a broad sense. So that the various efforts made tend to focus on increasing teacher competence, while efforts to improve the competence of madrasa heads and especially madrasa supervisors are relatively lacking. [1]

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Supervision activities by madrasa supervisors need to strive for a system that is sustainable and adapts to the times in an effort to improve the performance of teachers, madrasah heads, and madrasahs institutionally to ensure the implementation of a quality, independent, and outstanding educational process. [2]

The COVID-19 pandemic is not only seen as a disaster for education staff, especially supervisors, but also an interesting challenge. At that time, an effective way for madrasah supervisors to carry out their duties, principals, and functions was using online methods, or digital supervision. This fact confirms the opinion that information and communication technology (ICT) is currently very highly developed in society and continues to increase in line with increasing human needs. [3]

This is experienced by supervisors who have to carry out their duties and functions with physical distancing where factual and manual supervision cannot be carried out during the COVID-19 pandemic. The only way to supervise is to use a digital-based supervision model. Several attempts to develop an online-based supervision model have been made before. As the result of research conducted by Rezk Mayer. The aim of his paper is to propose a model of instructional leadership in which principals and supervisors shift from faultfinders to catalysts for teacher professional growth. This purported and differentiated model of supervision, in which teacher evaluation aims to empower teacher capacities, eliminate agitated performance measures, and turn supervision practices into missions of self-exploration. [4]

This study was guided by constructivist principles and used reports and online interviews of current Education 2.0 supervisors as a data collection tool conducted by Discovery Education local trainers in Egypt. The findings from this report and interviews highlight the shift in supervisors from an inspector role to that of a mentor and suggest a different model of supervision. The study findings are also supported by an intensive literature review so that they become a clear blueprint for an integrative and evaluative supervision model.

Several obstacles in the application of academic supervision, including the huge number of helped teachers and remote geographic locations, were addressed by the development of the web-based e-supervision assisted academic supervision model in the past. Web-based e-supervision facilitates communication and fosters virtual communities between supervisors and aided teachers by providing various forms of supervision through web-based internet technologies. [5]

Especially in terms of accessibility, the use of online-based supervision during the COVID-19 pandemic proved to be quite successful. The issue of supervisors not being able to visit every madrasa because of distance and the sheer quantity of madrasahs being too many and too far apart may be mostly handled. Supervisors can monitor madrasa instruction online at any time and from any location. [6]

However, in an effort to carry out the professional development and training of teachers and principals who require the transfer of knowledge, values, and exemplary behavior, face-to-face meetings will not be effective. Even if the supervisor will supervise the condition of madrasah facilities and infrastructure, online supervision will not be sufficient because it requires concrete physical evidence. In this context, a combination of online and offline (face-to-face) supervision models is needed, which is called hybrid supervision. [7]

2 METHOD

The creation of a hybrid supervision paradigm is the goal of this study. The research and development (R&D) approach makes use of the five stages of the ADDIE paradigm (analysis, design, development, and implementation). Because this research and development model is more comprehensive and logical than other models in the stages of product development, it is used for implementation as well as evaluation. All madrasah supervisors at the South Jakarta City Ministry of Religion Office served as the research's data source. [8]

The research in the ADDIE model served as a guide for developing the stages of the study. The following steps were taken methodically in order to conduct this research: 1) Stage of analysis. Currently, the objective is to create a hybrid supervision model based on hybrid supervision for application users, including teachers, non-educational staff, the Head of Madrasah Education Headquarters, supervisors, madrasah heads, and even individuals who require it outside of the Ministry of Religion office setting. Analysis is done to determine why this hybrid supervision model application is being developed, as well as who will use it. [9]

Defining the concept of hybrid learning—a blend of offline and online supervision models—and how supervisors might apply it to their supervisory responsibilities for teachers, madrasa heads, and madrasas under their supervision are also part of this analysis phase. Furthermore, a number of analyses were performed, such as: a) Analysis of work positions. The purpose of this individual analysis is to determine whether the issues at hand call for fixes involving the execution of the supervisory program. For instance, if the organization's low service index is caused by the instructors' lack of enthusiasm, expertise, and abilities, this calls for a solution in the form of a madrasa monitoring program that may be implemented by all roles linked. b) Evaluation of Performance. The purpose of this analysis was to determine whether all supervisors and teachers, regardless of their performance level, could implement this supervisory model and whether or not digital applications would improve or worsen the performance of madrasah heads, teachers, and supervisors. c) Needs Analysis. [10]

3 Research Result And Discussion

Referring to the research results in an effort to develop a hybrid supervision madrasah system in the post-COVID-19 pandemic era, the findings and discussion can be presented as follows:

Model for the Development of Hybrid Supervision Systems in Madrasas in the Post-Covid-19 Pandemic Era

. Before the COVID-19 pandemic, most of the supervisory duties were done face-to-face. Even though, since 2018, along with the massive use of digital platforms, a small number of individual supervisors have started to digitize supervisory tasks in a simple form, During the COVID-19 pandemic, the implementation of social distancing forced education to be carried out online. Features such as Google Forms, Google

Classroom, Spread Sheets, and teleconference media such as Zoom Meetings, Google Meet, WebEx, and others are digital facilities that are widely used by education practitioners to support their work both in teaching and supervision.

However, both online and offline supervision models, besides having advantages because supervisors can see, communicate, and interact directly and objectively, are also faced with various obstacles and shortcomings. In the offline model, several obstacles or deficiencies were found: a). The difficulty of reaching the target madrasah is due to the long distance and the lack of a ratio of the number of supervisors compared to the target madrasah, teachers, and principals. b) The communication, interaction, and collaboration of supervisors with teachers and head master are less intensive. While in the model, even though it can be done anytime and anywhere so that it can access the assisted madrasahs with great distances and in large numbers, there are still weaknesses and problems at the same time, including: a) It is less objective because it does not see or touch the facts; b) Transfer of values or exemplary is lacking; and c). Social interaction and collaboration are less intensive.

Therefore, it is necessary to have a supervision system in madrasahs based on integrated supervision (hybrid supervision), which combines offline and online supervision models where the two models can cover each other's weaknesses and then add independent supervision. The three models need to be designed in such a way as to be more applicable, effective, and efficient. The selection of this design needs to be adjusted to the needs in the field, as stated by Basuki Wibawa, who stated that quite a lot of the technology that is claimed to characterize industrial era 4.0 relations (especially during the COVID-19 pandemic) is not all relevant to the developing education sector. Emerging types of technology should be well identified within the education sector. [11]

Likewise, the design of an online supervision model needs to be focused on creating website pages as a source of information and data storage for supervision, communication media, and interaction of stakeholders in supervision, as well as making digital application products for supervision that contain supervision instruments, teaching materials for coaching, mentoring, and professional training of teachers and principals. schools, supervision and education journals, and other content according to the needs of the times.

Based on the results of identifying the need for supervision in the 4.0 era, an online supervision model is needed. The task facing supervisors is to increase teacher opportunities through the use of an integrated approach to enhance professional competence and increase accessibility for instructors with the use of electronic tools. [12]

The essential elements and factors to be taken into account while putting into practice a video conferencing surveillance program, particularly for supervising postgraduate students, were outlined by Dudding & Justice (2004). Furthermore, Rezk Mayer (2020:1–8) conducted research that resulted in recommendations for an instructional leadership model in which principals and supervisors shifted from faultfinders to catalysts for professional growth, empowered teacher capacities, eliminated agitation performance measurements, and turned practice into a mission of self-exploration. with constructivist principles and using reports and interviews for online supervision. [13]

In a more practice-oriented research project, we examine the implementation of online internet-based academic supervision and mastery of supervisor information technology in the context of increasing the professional competence of PAI teachers. The study's findings led to the first conclusion that PAI supervisors could successfully execute digital applications for online-based academic supervision tasks. Second, PAI supervisors successfully implemented online-based academic supervision activities, receiving a relatively high score of 70.67%, indicating that they were able to apply online supervision programs in academic supervision programs at schools. [14]

Third, considering the degree of implementation and mastery of online-based information technology, online-based academic supervision is successful and effective in raising the professional competence of PAI teachers. The average score was 70.43%, indicating a high degree of success. Ratna Priliantini studied electronic-assisted academic supervision approaches for madrasa supervisors in Central Java Province, particularly during the COVID-19 pandemic. [15]

According to the study's findings, online supervision has shown to be a successful way to address problems like uneven supervision between too few supervisors and too many teachers, aided schools, and difficult access due to distance. It can be completed whenever and wherever it is convenient. Digital solutions that can support e-supervision, such as LMSs, Zoom meetings, Google Classrooms, and others, are also covered in this study.

From the results of research on online-based supervision above, it boils down to the importance of websites and digital applications in e-supervision, which function as follows: 1) The utilization of digital apps as information sources The application is digitally created on an informational webpage that serves as a website. Supervisors can use digital data in web form and electronic data ranging from digital instrument applications, digital modules, video, audio, digital books, articles, journals, and digital libraries in addition to print, resource, and environmental information sources. 2) using media monitoring and internet technologies as tools. Artificial intelligence is used in the construction of digital surveillance tools and media, requiring consumers to do little more than follow instructions. 3). Digital applications are used to display the outcomes of monitoring. Artificial intelligence can be used in digital applications to deliver supervisory findings in a variety of formats, including products and reports. With some restrictions to protect the identities of administrators, teachers, and the target madrasah, supervision products can be given as spreadsheets, films, web blogs, vlogs, and the like. 4). Utilizing digital tools to facilitate communication and cooperation. Talking and working together are key elements of open monitoring. Discussions provide as a platform for educators, administrators, and other stakeholders to exchange ideas and information and discuss them with one another and with supervisors.

Collaborating or working together with other parties to create initiatives or items Digital apps for discussion and teamwork can take the shape of social media websites connected to Facebook, Instagram, Twitter, and other platforms. 5). Using digital tools as managers in charge Digital applications can be taught entirely online or through hybrid supervision, which combines online and in-person instruction.

The development of the hybrid supervision model in this study consists of two stages. In the first stage, this model focuses more on providing online supervision needs that are tailored to supervisory tasks in accordance with applicable regulations. So that then encourages the provision of an online supervision application called Madrasah Smart Digital (MASDA). The MASDA application is the main facility that can accommodate and unite all forms and models of supervision, both offline and online. MASDA is a kind of digital-based administrative center for carrying out supervision tasks as well as storing supervised documents. Then, in the second stage, user development or users That the MASDA application is not only a supervisory instrument for carrying out supervisory duties but also a space for interaction and communication as well as learning for various education stakeholders, both supervisors, the Head of the Ministry of Religion office, and a range of structural officials who have a working relationship with madrasa education, teachers, madrasa heads, etc. Therefore, the content presented is not only related to supervision but also supports the development of knowledge around madrasah education and education in general. [16]

The Feasibility of the Hybrid Supervision System in Madrasahs in the Post-Covid-19 Pandemic Era

In the results of the study, it was found that the MASDA application as a hybrid supervision system instrument was very suitable for use as a supervisory instrument in madrasahs in Era 4.0. The linguist's assessment score for the Smart Digital Madrasah Application is 88.89 (very feasible). Language feasibility: because this application uses the KBBI and PUEBI language rules, the editor is simple and easy to understand. While material experts gave a score of 84.02 (very feasible). The basis for a proper assessment of this material aspect is that the MASDA application refers to the components of supervisory duties in accordance with applicable regulations, namely Permenpan RB No. 21 of 2010, with the development of logical and accurate instrument points. The media expert's assessment score for the Smart Digital Madrasah Application is 84.72 (very feasible) because this application is web-based so that it can be accessed widely by users, has an artistic and communicative layout, menus that are easy to understand and operate, and can be accessed at any time. anywhere and everywhere. Likewise, from the results of the supervisor response questionnaire analysis, the percentage of analysis results reached 93.40. Thus, the MASDA application, which combines online, offline, and independent supervision models, is very suitable for use as a madrasah supervision system in the 4.0 era.

The Effectiveness of the Hybrid Supervision System in Madrasahs in the Post-COVID-19 Pandemic Era

The Hybrid Supervision System in Madrasahs in Era 4.0 is very effectively used by supervisors in carrying out supervisory duties and education stakeholders at various levels to monitor the development of madrasah education and learning spaces for all, especially related to contemporary educational issues. This can be seen from the results of the study, which explained both the effectiveness tests with one-to-one tests, small group tests, and large group tests, showing that the use of hybrid supervision is more effective than online and offline supervision models, which are carried out partially. The effectiveness of the MASDA application can be seen from several indica-

tions: a). The application is easy for users to understand. b) Users can use this application anytime and anywhere. c) Utilization of time is more efficient, as is the use of relatively cheaper costs. e) facilitates communication and collaboration as well as faster information between users, namely supervisors, principals, and teachers.

4 Conclusion

The COVID-19 pandemic that hit the world, including Indonesia, and the 4.0 era, which was marked by the massive use of the internet and physical distancing policies, have led the world of education to carry out online learning activities (e-learning). This subsequently prompted the introduction of online-based supervision, or e-supervision, as it was eventually termed. At that time, the majority of e-supervision was conducted by supervisors, both individually and through institutions, such as supervisors working for the City of South Jakarta's Ministry of Religion. Positive outcomes have been seen from the use of e-supervisory; at the very least, the supervision procedure for principals, instructors, and madrasahs is still in place and working fairly well. The models of online and offline supervision are complementary, enhance, and support one another. For this reason, the two models need to be created in a way that makes them applicable.

The design of the online supervision model was then focused on creating a website-based Smart Digital Madrasah Application (MASDA) as a source of information and supervision data storage, communication media, and interaction of stakeholders in supervision, as well as containing supervision instruments, teaching materials for guidance, and professional training of teachers and principals. schools, supervision and education journals, and other content according to the needs of the times. Based on the research results, the use of the madrasah supervision application, which was later called MASDA and was hybrid-based, was considered feasible and effective for maximizing educational supervision activities in madrasahs. It is hoped that hybrid supervision will develop into a useful alternative supervision system in the future, working in tandem with the relationships and interactions that supervisors, teachers, principals, and other education stakeholders can have both offline and online. This will help to raise the standard of education in Indonesia.

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