



UTILIZATION OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) IN ACADEMIC SUPERVISION DURING THE COVID-19 PANDEMIC

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Abstract: This study aims to determine the use of information and communication technology (ICT) in academic supervision during the Covid-19 pandemic, its effectiveness, and the obstacles faced. The research method used is a qualitative research method with a descriptive approach. Data was collected using Google Forms. The study results found that academic supervision was implemented by utilizing technology in the form of video call Zoom and Google meet applications. Other applications are also used to conduct discussions without video calls, such as WhatsApp and Telegram. The exciting thing is that school supervisors have used media questions in academic supervision activities. Constraints and solutions are also discussed to find the best solution in the future if academic supervision is still carried out online. The use of technology also has a positive impact in increasing the ability of school supervisors to use technology. Infrastructure improvements in rural areas are needed to ensure signal availability.

Keywords: ICT, Academic Supervision, Covid-19 Pandemic

Abstrak: Penelitian ini bertujuan untuk mengetahui pemanfaatan teknologi informasi dan komunikasi (TIK) dalam supervisi akademik di masa pandemi Covid-19, keefektifannya, serta kendala yang dihadapi. Metode penelitian yang digunakan berupa metode penelitian kualitatif dengan pendekatan deskriptif. Data dikumpulkan dengan menggunakan Google form. Hasil penelitian ditemukan bahwa pelaksanaan supervisi akademik dilakukan dengan memanfaatkan teknologi berupa aplikasi video call Zoom dan Google meet. Aplikasi-aplikasi lain juga dimanfaatkan untuk melakukan diskusi tanpa video call, seperti Whatsapp serta Telegram. Hal menarik adalah pengawas sekolah sudah memanfaatkan media soal dalam kegiatan supervisi akademik. Kendala serta solusi juga dibahas, demi mencari solusi terbaik dimasa depan, bila supervisi akademik masih tetap dilaksanakan secara online. Pemanfaatan teknologi juga memberi dampak positif berupa semakin meningkatkan kemampuan pengawas sekolah dalam penggunaan teknologi. Diperlukan perbaikan infrastruktur di daerah pedalaman demi menjamin tersedianya sinyal.

Kata Kunci: TIK, Supervisi Akademik, Pandemi Covid-19

INTRODUCTION

The current Covid-19 pandemic has made significant changes in various sectors of life; the education sector is one of the sectors affected. Education in Indonesia is supervised in the form of academic supervision; the purpose of this academic supervision is to ensure the quality of education is maintained (Matius et al., 2014). The existence of a pandemic forces educational supervision activities to be carried out without face-to-face; this is to prevent the spread of the Covid-19 virus (Rosalina et al., 2021). The utilization of information and communication technology (ICT) is the best choice for current conditions. The use of information and communication technology (ICT) in educational supervision certainly brings benefits, so supervisory activities can still be carried out even though the conditions are not like direct academic supervision.

The implementation of academic supervision consists of the principal as a supervisor and teacher. The principal as a supervisor must have an objective, democratic, cooperative nature, the ability to maintain good relations with teachers, and follow procedures (Kadarwati, 2016). It means that there is planning, implementation based on

appropriate methods and models, follow-up. So that after supervision, there will be an increase in the capability of teachers in educating. The performance of management in Indonesia has not yet provided a maximum contribution. This situation occurs because of the problems experienced by teachers from different educational backgrounds, unprofessional adjustments, achievement and creativity, the capability of a leader, psychological state, and academic professionalism (Rohman, 2016).

The achievement of educational goals cannot be separated from the management of the educational institution itself. Educational leadership includes planning, organizing, directing, and controlling educational resources. So it is expected that educational goals can be achieved effectively, efficiently, independently, and accountably. Educational resources are one of the most important factors that institutions must own in implementing educational escalation activities (Aditya & Ismanto, 2020). One of the most urgent supervision techniques in teacher competency development is the class visit technique. The effectiveness of the implementation of academic supervision is one of the determinants of the success of educational management (Guntoro et al., 2016). If the administration carried out is effective, the quality of the education carried out will also improve. The drastic change from direct supervision to schools meeting teachers and principals to online surveillance creates various obstacles. The problems faced should be found a solution as soon as possible, so that the quality of education in schools is maintained even with multiple shortcomings.

The purpose of this study was to determine the information and communication technology used by school supervisors in carrying out academic supervision during the Covid-19 pandemic, the effectiveness of its use, and the obstacles faced. Improving the quality of learning and teacher professionalism in their performance is closely related to supervision services.

LITERATURE REVIEW

Utilization of Information and Communication Technology (ICT)

According to Bambang Warsita, information technology is a set of tools and infrastructure (hardware, software, and user) for getting, sending, processing, interpreting, storing, organizing, and using data in meaningful ways (Suprayekti & Hanum, 2018). Information technology is defined as a branch of science concerned with computer-based information, and it is rapidly evolving (Munti & Syaifuddin, 2020). The term "information technology" refers to a technology that is used to process data. Processing entails gathering, assembling, storing, and altering data in various ways to provide high-quality data, i.e., relevant, accurate, and timely (Asmawi et al., 2019). Information and Communication Technology (ICT) refers to all forms of technology used to create, store, transform and use data in all its forms (Eliyani, 2019). Information technology is a broad term that refers to any technology that aids in the generation, manipulation, storage, communication, and transmission of data (Huda, 2020). Information and Communication Technology (ICT) is a technology in the form of (hardware, software, user) used to obtain, transmit, process, internet, store, organize, and use data meaningfully to obtain quality information and convey information. The benefits

of Information and Communication Technology (ICT) are as follows: First, ICT as a source, namely ICT can be used as a source of information and find information that will be needed. Second, ICT as a medium, as a tool that facilitates the delivery of information so that it can be accepted and understood easily. Third, ICT is a developer of learning skills and information technology-based skills with applications in the curriculum (S. Z. Dewi & Hilman, 2019; Sulistyowati, 2013).

Academic Supervision

Supervision means observing, supervising, or guiding the activities carried out by others intending to make improvements (Berliani, 2017). Supervision is a coaching activity planned to assist teachers and other school staff in carrying out their work effectively (Marius, 2020). Supervision is a process specifically designed to help teachers and supervisors learn daily tasks at school, use their knowledge and abilities to provide better services to parents of students and schools and make schools a more effective learning community (Lalupanda, 2019).

The standard for school supervisors must conduct monitoring, supervision, and evaluation is the standard for a process. The learning process must be Supervised at the planning, implementation, and assessment stages of learning outcomes (Marsalin, 2019). Learning supervision is carried out by giving examples, discussions, training, and consultations, while evaluation is carried out to determine the overall quality of learning. The learning process is assessed by comparing the learning process carried out by teachers with process standards and identifying teacher performance in the learning process following competent teachers (Setiyaningsih et al., 2020).

Supervision is carried out by supervisors starting with preparing academic supervision programs, including annual programs and semester programs. The instrument for observing administrative documents in the learning process includes checking 13 important documents teachers use in the learning process. The thirteen papers are (1) standard competency/basic competence, (2) annual program, (3) semester program, (4) mapping, (5) syllabus, (6) Learning Program Implementation Plan, (7) completeness criteria minimum, (8) teacher journals, (9) grade books, (10) question grids, (11) value analysis, (12) improvement and enrichment programs and (13) resource books (Messi et al., 2018).

Covid-19 Pandemic

Coronaviruses are a large family of viruses that cause illnesses ranging from mild to severe symptoms. There are at least two types of coronavirus known to cause an infection that can cause severe symptoms (Juhaina, 2021). Coronavirus Diseases 2019 (Covid-19) is a new type of disease that has never been previously identified in humans. Common signs and symptoms of Covid-19 infection include symptoms of acute respiratory distress such as fever, cough, and shortness of breath. The average incubation period is 5-6 days, with the longest incubation period being 14 days. On January 30, 2020, WHO has declared it a public health emergency of concern to the world (Wirawati et al., 2020). The Covid-19 virus in Indonesia is currently impacting all people in various fields such as social, economic, tourism, and education. All indoor and outdoor activities in all sectors are temporarily postponed to reduce corona spread, especially in the

education sector (E. U. Dewi, 2020). The learning process is carried out at home through online/distance learning to provide a meaningful learning experience for students. Studying at home can focus on life skills education, including the Covid-19 pandemic (Iriansyah, 2020).

RESEARCH METHODOLOGY

The research method used is qualitative research, with data analysis using a descriptive approach. A qualitative research method is used to answer research problems related to data generally in the form of narratives sourced from interviews, observations, extracting documents (Sugiyono, 2016). Descriptive research is a research method that seeks to describe the object or subject being studied objectively. It aims to describe the facts systematically and the characteristics of the thing, and the frequency of the research accurately (Zellatifanny & Mudjiyanto, 2018). Data collection was carried out by distributing questionnaires in the Nusantara Supervisory WhatsApp group using Google Forms. The number of respondents was 38 school supervisors, with details of 28 school supervisors from the Bengkulu area and ten others from various regions in Indonesia. The time of data collection is in October 2021. The sources of research data are school supervisors who carry out academic supervision during the Covid-19 pandemic. Data was collected by distributing open-ended questionnaires, while the questions given can be seen in the table. 1.

Table 1. List of questionnaire questions

No	Question
1	What is the ideal academic supervision process, in your opinion?
2	How do you conduct academic supervision during the Covid-19 pandemic?
3	Have you used technology in conducting academic supervision during the Covid-19 pandemic?
4	What technology did you use during the Covid-19 pandemic? (e.g., Zoom, Google form, Google meet, WhatsApp, Telegram, Facebook, Instagram, Twitter, etc.)
5	How do you use this technology?
6	What benefits have you experienced in using technology during academic supervision during the Covid-19 pandemic?
7	Is your academic supervision effective during the Covid-19 pandemic? Explain the reason
8	What are the difficulties with academic supervision during the Covid-19 pandemic?
9	What are your suggestions for improving academic supervision using technology?
10	In your opinion, what is the most effective technology used for academic supervision during the Covid-19 pandemic?

FINDINGS AND DISCUSSION

Utilization of Information and Communication Technology (ICT) in Academic Supervision During the Covid-19 Pandemic

Questionnaire questions begin by asking the ideal academic supervision process; here, the school supervisor answers the exemplary educational supervision process in direct academic supervision in the field face-to-face with teachers, instruments, and coaching tools that have been well prepared and maximally. Good visionary leadership must find teaching problems faced by teachers and provide solutions to these problems. Good supervision is expected to bring positive changes to teacher performance (Damayanti, 2016). Management must be on schedule, planned, effective and efficient. Good supervision should be well scheduled and carried out effectively and efficiently (Nurmalina, 2018). School supervisors also carry out online supervision by utilizing zoom and google forms for supervision during the pandemic. The school supervisor said that during the Covid-19 pandemic, the use of ICT was very helpful.

Academic supervision during the Covid-19 pandemic is carried out by utilizing ICT, which is carried out online by using various applications such as Google form, Google classroom, Zoom, WhatsApp groups, Telegram, and Google meet. Supervision is also carried out by making direct telephone calls with teachers and sharing photos at school. School supervisors also combine online and offline academic supervision. Offline supervision is carried out by implementing strict health protocols to prevent the transmission of the Covid-19 virus. Today's academic supervision must be conducted online by utilizing technology (Berliani et al., 2021; Marianis, 2021; Pohan, 2020). When carrying out supervision by video call, school supervisors and teachers will discuss the problems being faced and together find solutions to the issues being faced. For evaluation, supervisors also use the Quizizz application and Google Form so that assessments can also be carried out online. The monitoring process also utilizes social media such as Facebook and Instagram.

The use of ICT by school supervisors is carried out with the help of cellphones and laptops. Mobile phones and laptops are used to facilitate communication by supervisors and teachers and to be able to access applications that are used during the educational supervision process. The application used is utilized as much as possible so that the supervision process carried out online can approach the supervision carried out offline or directly face to face. The application is also used to send instruments to teachers; school supervisors will later assess these instruments.

Effective Use of Information and Communication Technology (ICT)

Utilization of ICT when academic supervision is currently an option (Pujati, 2019). Effective use of ICT, most school supervisors say that its use is still not effective, but its use is very useful during times like the current pandemic. This lack of effectiveness is caused by the limited objects of educational supervision that can be carried out, signal interference, and the supervision carried out becomes less detailed. Without direct interaction with teachers, it is also the cause of the ineffectiveness of online academic supervision. The condition of the supervision area that does not all have good signals is one of the main factors, considering that the signal is a key factor so that academic

supervision can be carried out online. The implementation of less detailed supervision causes the data collected to be incomplete; this will cause the performance of academic supervision to be less effective.

School supervisors answered that ICT was effective only during a pandemic, considering that face-to-face supervision was not allowed. The availability of online supervision facilities must support this effectiveness so that school supervisors can conduct discussions with teachers directly using video call technology. Academic supervision conducted online provides various benefits: efficient, cost-effective, energy-saving, faster, and maintaining health considering the pandemic is happening. Another benefit that school supervisors feel is progress in ICT use, with supervision carried out online, indirectly forcing supervisors to master various types of ICT. It makes school supervisors more proficient in the use of technology. The effective technology used during the Covid-19 pandemic is the Zoom application, WhatsApp, Google Classroom, and Google Meet.

Constraints to Utilization of Information and Communication Technology (ICT)

Every use of technology must have obstacles; the obstacles faced should be material for future improvements. The implementation of academic supervision by utilizing ICT faces various obstacles; the constraints include poor signal, lack of mastery of technology, frequent power outages in remote areas, lack of internet quota, and increasing credit costs. In addition, a lack of money for the education sector impedes the successful adoption of ICT in public schools (Salam et al., 2017). As stated by Sugiyono, one of the obstacles faced by school supervisors is in the form of poor signals (Sugiyono, 2021). The obstacles faced are not so pronounced in urban areas because usually, the infrastructure is well-available in urban areas, so supervision can still be carried out smoothly.

As input to the obstacles faced, school supervisors hope that the government pays attention to supporting facilities for online supervision. Providing internet signal access throughout remote areas is a key factor so that supervision can still be carried out. The implementation of training is needed to prepare school supervisors to use ICT, one solution in the form of implementing ICT utilization training that can be done online to train school supervisors to master the latest technology. The use of ICT in teaching and learning has been a huge success. Computer studies are governed by a dynamic process involving several interrelated factors rather than by the presence or absence of a single element (Agbo, 2015). The distribution of credit and internet quota is also needed not to burden teachers and supervisors with additional costs. The standard monitoring instrument is also forgotten, specifically for use online.

CONCLUSIONS

Academic supervision during the Covid-19 pandemic is carried out online; Information and Communication Technology (ICT) is a non-negotiable necessity to prevent the spread of the Covid-19. The technology used in academic supervision is in video call applications such as the Zoom meeting application, Google meets application. For face-to-face discussions, school supervisors use the WhatsApp, Telegram, and

Google Classroom applications. Evaluation is done by using Google Forms and Quizizz. School supervisors also take advantage of social media such as Facebook and Instagram. The academic supervision carried out was less effective; this was due to the many obstacles faced. The barriers faced were of various kinds, such as the lack of available infrastructure in the form of signals, lack of training in the use of technology, and the increase in the cost of buying credit. But for special conditions like today, the use of ICT in supervision is very helpful. It is necessary to improve the infrastructure to support the implementation of online academic leadership. The assessment instruments that have been used so far need to be updated to suit the latest conditions in the field. One of the good things about the requirements during the pandemic is the increased ability of supervisors to utilize ICT.

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