Development of Technology and Information Assistant Clinical Supervision Model in Private Madrasah Aliyah Yayasan Perguruan Islamiyah Batang Kuis Deli Serdang Regency

Dahlia[1], Yuniarto Mudjisusatyo[2], Rosnelli[3]

{dahlia.qia@yahoo.com, yuniarto@unimed.ac.id, rosnelli@unimed.ac.id}

Universitas Negeri Medan, Medan, Indonesia[1,2,3]

Abstract. This study aims to produce a product in the field of education administration in the form of a clinical supervision model assisted by technology and information, which is expected to improve the quality of the implementation of clinical supervision during the COVID-19 pandemic. This research was carried out in the MAS YPI Batang Kuis Deli Serdang Regency. The research method used in this study is the Research and Development method with level 1, namely conducting research and producing an internally validated model. In three stages of research, three sets of analysis were used: stage 1 preliminary study, stage 2 development model, and phase three model validation. The research subjects are teachers and private madrasah. Data were obtain edusing three data collection techniques: observation, interviews, and documentation analysis. The data analysis technique used a qualitative approach: data reduction, data presentation, and conclusion drawing. The results of this study are called the clinical supervision model assisted by technology and information. This model is the result of the development of the model by redesigning components that are considered to have an effect on improving the quality of the implementation of clinical supervision implemented in madrasah during the covid-19 pandemic. The model was validated through a Focus Group Discussion with the principal as a practitioner and experts. This model contains four clinical supervision implementation stages: the initial planning stage, initial meeting, observation, and feedback findings, along with the application used. To make it easier to implement, this model is equipped with a guide so that the head of the madrasah will find it easier to learn and apply.

Keywords: clinical supervision, technology, and information

1 Introduction

Regulation of the Minister of National Education of the Republic of Indonesia No. 13 of 2007 concerning the Standards of Principals mandates that principals are the highest leaders in schools; they are required to have five dimensions of competence, namely personality, managerial, entrepreneurial, supervisory, and social competencies. Supervision is a

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supervisory activity to help improve and improve education management in schools. Supervision must be carried out to improve the quality of education, especially in the teaching and learning process. There fore, one of the principal's duties is as a supervisor, namely supervising the work carried out by academic staff [1]. Clinical supervision is a vehicle for developing teachers to be professionally responsible for analyzing their performance and open to change and help from others, especially in self-direction [2].

The Covid-19 pandemic, which is continuing, has resulted in changes in all forms of educational programs, including academic supervision. This situation is a challenge for the principal as a supervisor because the principal is the driving force for educators to stay healthy, stay safe and keep working in any situation, especially during the Covid-19 pandemic. In the Covid-19 pandemic situation, where all school components are required to reduce the mobility of meetings to prevent the transmission of the Covid-19 virus, school principals must continue to carry out the task of guiding teachers toward improving their teaching. Because, after all, clinical supervision is an alternative to enhance learning even during the Covid-19 period. In this era of a pandemic like this, Indonesian education needs to follow a path that can help the world of education in an emergency, so it is necessary to force yourself to use online media. The facilities needed in this online media are electronic devices such as cell phones and laptops, thus causing all school components to master new abilities in technology and information.

Based on interviews with school principals conducted in January 2022 in the Private Madrasah Aliyah YPI,Batang Kuis Deli Serdang Regency, they found the following phenomena:

1. Teachers did not understand the meaning and benefits of supervision; they considered supervision an inspection, only looking for the teacher's fault.
2. Supervision occurs in schools as a routine managerial program not based on teacher needs.
3. Teachers are passive and assume supervision is a program of principals and supervisors only, so teachers wait whenever supervision is carried out.
4. Coaching or supervision carried out by principals or supervisors is rarely carried out, so teachers are passive in improving their teaching abilities.
5. Principals rarely carry out clinical supervision because no teachers are willing to ask for help in solving problems faced by teachers in learning.
6. In the era of the covid-19 pandemic, the implementation of clinical supervision experienced many obstacles because all school members were required to reduce the mobility of meetings. Hence, the performance of clinical care was not complete.

It is concluded that the implementation of clinical supervision is still not adequate. Therefore, the solution is that it is necessary to develop a clinical supervision model assisted by technology and information that can help the implementation of supervision during the Covid-19 period and increase continuous supervision.

Clinical supervision assisted by technology and information can be analternative supervision model in the pandemic era by using online media (zoom). Because by using zoom, the principal can still provide guidance or coaching to the teacher in question, even though they have to be in their respective rooms without meeting face-to-face but can still meet face-to-face on the screen. Because conceptually, clinical supervision is a process of teacher professional development carried out directly (face to face). Even if, in fact, in the field, the

implementation of clinical supervision must meet face-to-face, it must still comply with existing health protocols.

Based on the existing phenomena and research on the development of previous clinical supervision models, it can be concluded that developing a technology-assisted clinical supervision model is the right one to apply in a pandemic like today. Because with the technology and information-based clinical supervision model as an alternative in implementing clinical supervision, coaching or guidance for teachers can still be carried out even with online media (zoom). There fore, researchers are interested in conducting research on developing a clinical supervision model based on technology and information in MAS YPI Batang Kuis Deli Serdang Regency.

Clinical supervision is part of teaching supervision. It is said to be clinical supervision because the implementation procedure is more focused on finding the causes or weaknesses in the teaching and learning process and then directly trying to fix these weaknesses or deficiencies. Clinical supervision is professional assistance given to teachers who have problems in carrying out learning so that these teachers can over come the difficulties they experience related to the learning process [3]. Then Purwanto explained clinical supervision as supervision focused on improving teaching by running a systematic cycle from the stage of intensive intellectual observation and analysis to the actual teaching performance [4]. The purpose of clinical supervision is to help modify learning patterns to achieve effectiveness. The targets of clinical supervision, namely, first, are to build teacher motivation and work commitment. Second, to provide staff development for teachers.

Sudjana said that there are four steps of the clinical supervision model, namely (1) initial meeting, (2) teaching observation, (3) feedback meeting, and (4) follow-up. Furthermore, Abidin states that clinical supervision consists of three processes, namely (1) the observation process, (2) the assistan ceprocess, and (3) the learning process. In comparison, Glickman states that there are five steps in the implementation of clinical supervision: (1) initial meeting with the teacher, (2) classroom observation, (3) analyzing and interpreting observations, and determining the approach to the meeting, (4) feedback/reflection with a teacher, and (5) a review of the previous four steps [3].

The Covid-19 Pandemic period made changes to the learning system that required school principals and teachers to be able to master technology and information to carry out the online learning process. Changes in the learning system also cause the supervision pattern carried out by supervisors to be adjusted to learning during the pandemic. In the pandemic era, all elements in the world of education, when carrying out educational activities, will, of course, be in direct contact with technology and information media.

Various kinds of digital applications can be chosen or used by principals in conducting coaching, such as see saw, Microsoft teams, cisco Webex, google meet and zoom cloud meetings. In the work guide for school supervisors during the pandemic published by the Ministry of Education and Culture (2020), several applications that can be used in the world of education: SMS, telephone, Whatsapp, google form, Microsoft teams, zoom, google meet, Webex, etc. (individual assistance). As for group assistance, applications that can be used include WhatsApp (8 people video call), Microsoft Teams, Google Forms, Zoom, Google Meet, WebEx, etc.

2 Methods

The type of research used to develop this clinical supervision model is the type of research and development level 1, which aims to produce a product in the form of a clinical supervision model assisted by technology and information.

Level 1 R&D research can be visualized in the following figure:

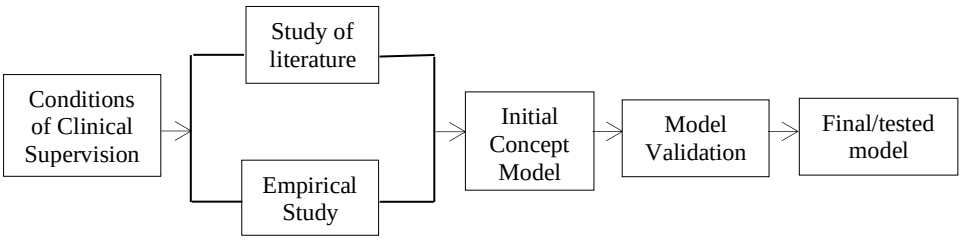

Fig 1.R&D Research Steps Level 1 (Sugiyono, 2015)

3 Results and Discussion

Broadly speaking, the trials in this study were carried out in two stages. The first phase of the trial was carried out by practitioners. This trial involved one principal and seven teachers at MAS YPI Batang Kuis, Deli Serdang Regency. The trial in this second stage aims to obtain internal validation by experts in the field of education management. The expert validators at this stage consist of three people with Doctoral degrees in Education Management who are postgraduate lecturers in the Universitas Negeri Medan.

The first phase of internal validation trials was carried out through Focus Group Discussion (FGD) activities with practitioners. This trial was conducted with the aim of validating each stage of clinical supervision along with the technology and information used in each stage internally and also to obtain input/suggestions from model users (practitioners). There are ten indicators that are discussed and assessed by practitioners. The first four indicators relate to the clinical supervision stage with the technology and information used, which consists of 1) initial planning stage, 2) initial meeting stage, 3) observation stage, and 4) feedback and follow-up meetings. Coupled with the ease of designing a clinical supervision model assisted by technology and information to understand, apply, and the effectiveness and efficiency of the model.The description of the internal validation of the technology-assisted clinical supervision model based on the results of the Focus Group Discussion (FGD) with practitioners at MAS YPI Batang Kuis Kabupaten Deli Serdang can be seen in the following diagram:

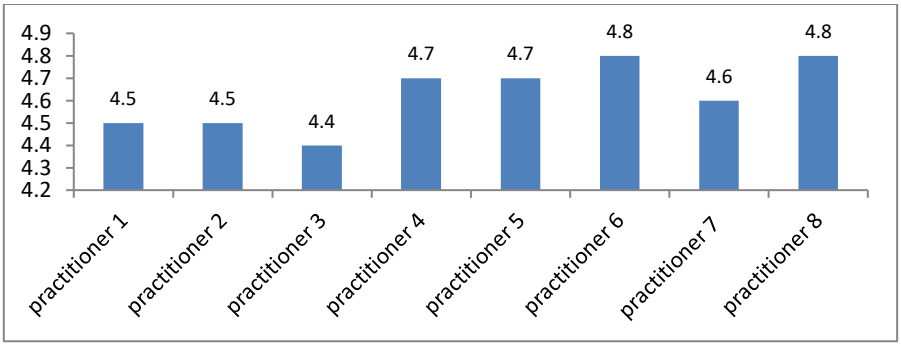

Fig 2. Diagram of Validation Results by Practitioners in FGD 1

The results of internal validation through the first Focus Group Discussion (FGD I), as well as suggestions or input from practitioners, were reviewed and analyzed by researchers. Based on the validation and recommendations results, the researchers conducted the first revision (Revision I) of the previous clinical supervision model. Furthermore, to obtain a better degree of validity, it is necessary to carry out internal validation by Expert Judgment through FGD II on the results of the first revision. If FGD I practitioners assessed the dimensions and components of clinical supervision, then FGD II experts who acted as validators evaluated the design of the clinical supervision model assisted by technology and information, stages, and sequences of the clinical supervision model. However, the last four in dicators in FGD I related to product convenience, practicality, effectiveness, andefficiency were stillincluded. This is because the four indicators are the primary substance of any development model.

The description of the internal validation of the technology and information-assisted supervision model based on the results of the Focus Group Discussion (FGD) with Expert Judgment at the State University of Medan can be seen in the following diagram:

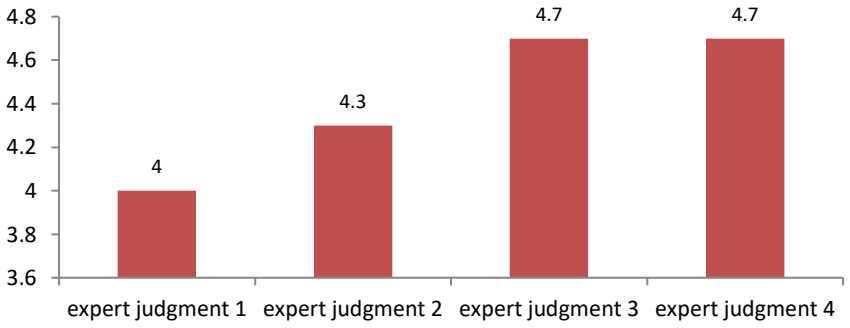

Fig3. Diagram of Internal Validation Results by Expert Judgment in FGD II

The developmentof a conceptual model is the development of a model based on a literature review, empirical study, and needs analysis. In the literature review on clinical supervision, clinical supervision as supervision focused on improving teaching by running a systematic cycle from the stage of intensive intellectual observation and analysis to actual teaching performance[5]. Acheson and Gall explained that the purpose of clinical supervision is to

improve the teacher-managed learning process in the classroom. These goals are broken down into more specific goals:

1. Provide objective feedback to the teacher regarding the teaching being carried out.
2. Diagnose and help solve teaching problems.
3. Helping teachers develop their skills using teaching strategies.
4. Evaluating teachers for promotion and other decisions.
5. Helping teachers develop a positive attitude to wards continuous professional development.

There are four stages in the implementation of clinical supervision, while the stages are (1) initial meeting, (2) teaching observation, (3) feedback meeting, and (4) follow-up. In comparison, Glickman (2010: 289) states that there are five steps in the implementation of clinical supervision: (1) initial meeting with the teacher, (2) classroom observation, (3) analyzing and interpreting observations, and determining the approach to the meeting, (4) feedback/reflection with a teacher, and (5) a review of the previous four steps.

In addition to a study of the meaning, objectives, and steps for implementing clinical supervision in the literature review, it was also found that in the work guide for school supervisors during the pandemic published by the Ministry of Education and Culture (2020), several applications that can beused in the world of Education: SMS, telephone, Whatsapp, google forms, Microsoft teams, zoom, google meet, Webex, etc. Because in the pandemic era, all elements in the world of Education, when carrying out educational activities, will, of course, be in direct contact with technology and information media. Changes in the learning system also cause the supervision pattern carried out by supervisors to be adjusted to learning during the pandemic. Based on the literature review, empirical studies, and needs analysis, the researchers formulated an initial model of technology-assisted clinical supervision in the following figure:

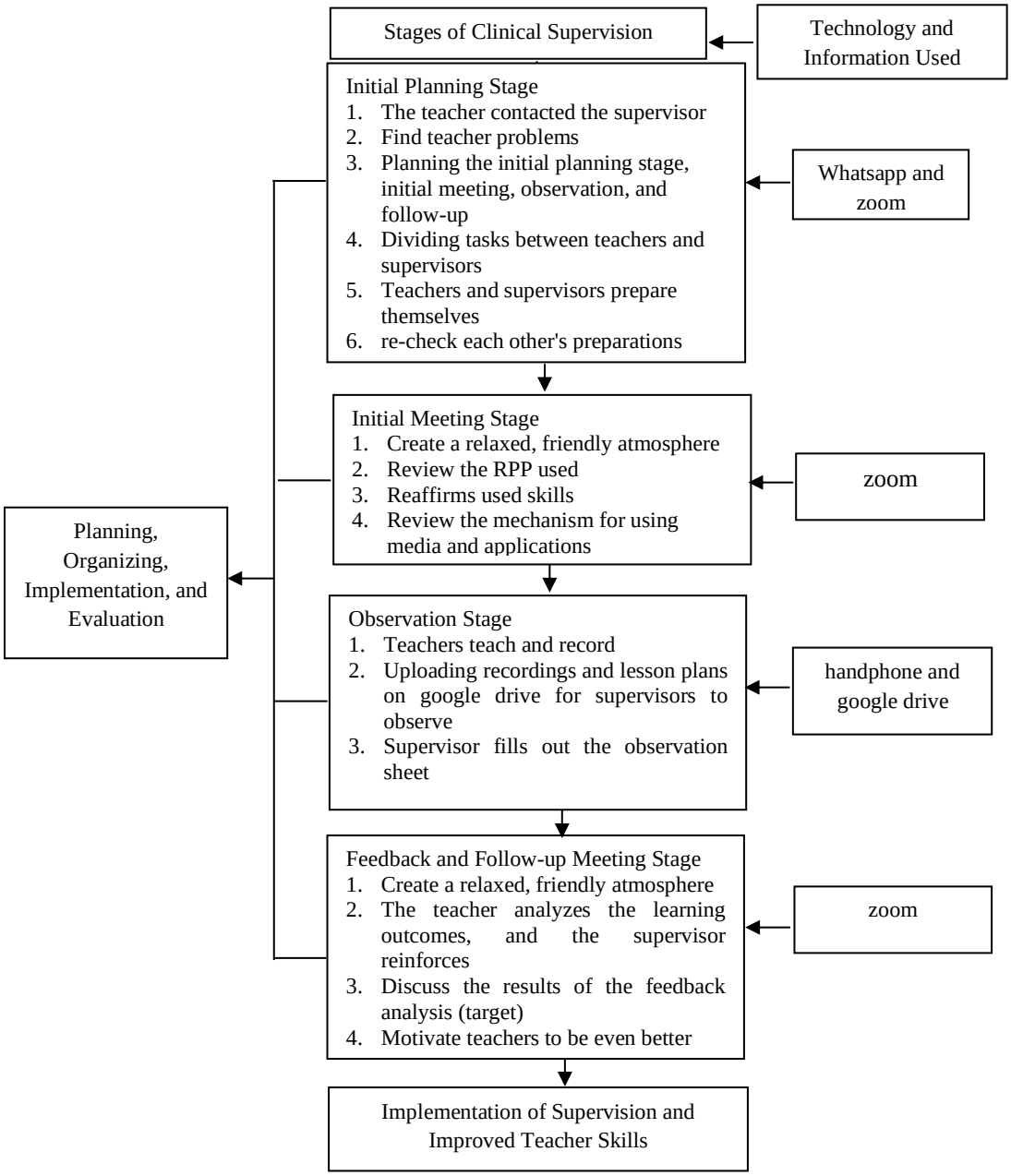

Fig4. Final Design Model for the Development of Information Technology Assisted Clinical Supervision

1. At the initial planning stage, the teacher contacted the supervisor to ask for help with the problem through the clinical supervision process by sending a message (chat) or telephone via WhatsApp. The teacher conveys the skills to be improved. Then they meet

on zoom to plan the initial planning stage, the initial meeting stage, the observation stage, and the feedback or follow-up meeting stage. Dividing tasks between teachers and supervisors, the teacher prepares himself with all his learning tools by practicing explaining skills. And supervisors also master in detail and detail the skills to explain as clearly as possible. Then they met again with Zoom to re-confirm self-preparation between teachers and supervisors.

2. At the initial meeting stage, it continues in the zoom application. The supervisor creates a relaxed and friendly atmosphere so that the atmosphere is not too tense. The teacher displays the lesson plans the teacher wants to convey later in class. Supervisors and teachers review the lesson plans. The teacher reaffirms the skills to explain what you want to use. Then check the mechanism of media use and applications used in the observation stage.
3. At the observation stage, the teacher teaches in the class according to the contract. As usual, the teacher teaches one hour of lessons, then records using a cell phone (mobile phone). The teaching recording results are uploaded to Google Drive together with the lesson plans. After uploading, the teacher sends the link to the supervisor so that the supervisor can access the video and lesson plans anywhere and anytime at the same time while observing the teacher teaching and filling out the observation sheet.
4. At the meeting stage, feedback is still taking place in the zoom application. The supervisor creates a relaxed and friendly atmosphere. Ask how the teacher feels overall after teaching. The supervisor reviewed the lesson plans contract and asked the teacher to analyse the learning outcomes. Remind the teacher about the display contract (are these skills appropriate?) and dissect the explaining skills used. Supervisors show and provide feedback on targets and allow time to analyse input. Discuss the results of feedback analysis (teachers reveal strengths and weaknesses in teaching). The supervisor asked about the teacher's feelings again. Summarize the results of the conversation and motivate to perform better.

The advantages of the clinical supervision model assisted by technology and information are as follows: 1) In the observation stage, the teacher does not feel that his teaching skills are being assessed because the supervisor is not present in class. 2) This technology and information-assisted clinical supervision model is out standing in terms of the limited time that the principal as a supervisor has given the number of teachers who must be fostered or mentored. 3) This model is constructive in providing professional guidance for teachers by prioritizing self-assessment so that it does not appear to show teacher shortages. Still, improvements are made based on the awareness or desire of the teachers themselves. 3) Clinical supervision assisted by technology and information facilitates teacher assessment in the observation stage because, with the help of technology and information, the results are more accurate and thorough through analysis of activities that can be carried out in real-time, without limited time, distance and place.

4 Conclusion

The research and development results of the technology and information-assisted clinical supervision model have carried out the steps according to the planned procedure. The model developed is expected to be a solution to optimizing the implementation of clinical supervision

during the COVID-19 pandemic to improve explaining skills by utilizing technology and information assistance such as WhatsApp, *zoom, google drive,* and *handphone.* Implementation does not require teachers and supervisors to meet in person but can meet face to face through the zoom application.

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