Clinical Supervision Using Information Technology to Improve Teacher Quality

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This study intends to provide an overview of the importance of clinical supervision as an alternative solution to improving the quality of the learning process through information and technology. This study used a qualitative survey design and data was collected through quantitative and qualitative methods. Thirty-three (33) participants were sampled. They consisted of ten (10) principals, 20 teachers, 2 area supervisors and one master supervisor. The findings of the quantitative data indicate that most primary school supervisors have knowledge of clinical supervision and use it in primary school supervision. Conversely, evidence from interviews shows that they were unable to apply that knowledge adequately and effectively as needed in supervising teachers. The existence of clinical supervision using information technology shows that in the first cycle, the results showed that teachers were able to use the media at 67.5. In the second cycle, this rose to 80 points, an 18.51% increase. Student involvement in learning in the first cycle was 70 points. This increased by 7.14% in the second cycle. The technology and information-based clinical supervision model is very effective. Due to the limited time possessed by the supervisor, there are many teachers who must be fostered in one target area. There is good communication between supervisors and teachers in the target area because it can be done via e-mails or calls directly to handphones and use of a website. This supervision model is very suitable for teachers who experience special problems in learning.

Introduction

Teachers play a central role as the adapters and implementers of digital materials. Some have been in the vanguard of experimentation with new technology (Puttick, Drayton, & Karp, 2015). That's why teachers need to develop their competence. They can then effectively facilitate students' use of simulations, digital labs and educational games to support curricular goals as well as differentiated learning (Honey & Hilton, 2011). To improve their competence and effective teaching, schools need supervisors to upgrade teachers' professionalism. One of the ways to improve supervisors' knowledge and use of clinical supervision is to promote teachers in basic schools (Sarfo, Frederick Kwaku. & Cudjoe, Benjamin., 2016). School supervisors, as professional supervisors, must always supervise the implementation of activities. This process includes academic supervision and managerial supervision in their target areas. The supervision process at the school was perceived by both teachers and supervisors as serving most of its purposes. However, it was perceived as being cumbersome to the point of needing improvement (Nabhani, Bahous, Rima., & Sabra, 2015). One form of supervision that was the spearhead of the success of education was academic supervision relating to the aspects of guidance, monitoring, assessment and professional training of teachers in carrying out their primary tasks. Teachers, as the spearheads in the implementation of education in schools, have an essential role in achieving the quality of education in schools.

As we knew, Cogan explained that the central objective of the process of clinical supervision is to help develop a teacher who is professionally responsible and analyses his/her own performance. They must be ready to open up to others and also be self-directing (Sarfo, Frederick Kwaku. & Cudjoe, Benjamin., 2016). This concerns the role of supervisors to carry out their main tasks through assessing, fostering, monitoring and training teachers in the target area. Supervision is carried out in order to improve learning activities. In general, the supervision carried out at this time appears as the initiative of the principal or supervisor, not the teacher. This research is based on that of Moswela and Mphale about barriers to clinical supervision practices in Botswana's schools (Moswela & Mphale, 2015). Clinical supervision needs to be a designated and binding role to those in senior posts in schools. Today, the supervision of teachers remains an option and is not mandatory in schools (Moswela, Bernard., 2010). Ideally, efforts to improve learning activities come from the teacher in question.

Clinical supervision is congruent. Teachers are not supervised by supervisors but collaboratively carry out continuous learning improvement activities in unlimited time. In

Jerusalem, the effectiveness of clinical supervision on teachers' professional technological development was analysed in a case study (Fteiha, Ahmad., & Abdawi, Noor., 2017). During this time, clinical supervision is not fully understood by teachers and supervisors. The teacher waits for their turn to supervise. The teacher should actively ask for help from the principal or supervisor for supervision. This should be done with the hope that after clinical supervision, the teacher can improve the quality of the learning process. In addition, the teacher helps to identify and analyse the problems that arise in the learning process. The research on supervision also affects the teaching performance of secondary school teachers (Veloo, Komuji, & Khalid, 2013). The use of information technology is increasingly sophisticated. Information technology is technology that can create and process data in a variety of ways. This may be done with computers, cell phones, cameras, etc. Information technology is used in everyday life and has even become a necessity. There is no exception to its use in the learning process.

Teachers can utilise information technology in clinical supervision. If a teacher uses the help of information technology in supervision, then a stage of strategic observation and analysis can use video recordings to incorporate the presence of supervisors in real time. At the same time, video recordings can be used in class. The teacher can teach with video recordings. The recordings can be analysed independently and be shown to the supervisor. They can then discuss the footage together in order to reach solutions to problems. This can facilitate teachers and supervisors in conducting clinical supervision. In addition, the teacher would not feel awkward when learning. Clinical supervision using this information technology can be done at any time without having to wait for a supervisor. Video recording activities can be done alternately among friends when other friends have no teaching assignments. This information technology-based clinical supervision is a breakthrough for supervisors in the implementation of supervision framework. Using technology helps teachers to enhance clinical supervision and training (Rousmaniere, Tony., 2014).

According to Nurfatah & Nur Rahmad, technical assistance is provided to teachers as an ongoing capacity building effort (Nurfatah., & Rahmad, Nur., 2018). Clinical supervision is a means of guidance and coaching provided according to the needs of the teacher and carried out objectively, comprehensively (covering processes and results) and continuously (planned, gradual and continuous). A study by Sulivan and Glanz shows that clinical supervision has increased the quality of classroom teaching and learning (Sulivan, S., & Glanz, 2000). Clinical supervision is one of the special practices at the highest level of social work practices. This is because supervisors clinically prepare social workers for independent practice without further supervision (Openshaw, 2012). Clinical supervision is professional help that is given to teachers in order to enhance teaching competencies. It is focused on improving behaviour/skills in the process of learning to teach specifically. For example, how to control classes, how to motivate a child and the way using a scientific approach in the 2013

curriculum. This is because the 2013 curriculum has purposes, such as the development of the demands, needs and conditions relating to aspects of the community in educational output (Rudy, 2015). The research involves general stages of clinical supervision, such as planning conferences, classroom observation and feedback conferences. The implementation plan of learning must look at the situation, obstacles and conditions. This purpose of this research is to investigate clinical supervision that uses information technology. It can help the teacher to develop and improve their professionalism through joint planning, observation and feedback (14, pp. 191). The following stages are involved in the implementation of learning:

Carrying out preliminary activities
The purpose of the preliminary activity to prepare students ready psychologically and physically to follow the learning process. In preliminary activities consist of giving motivation and giving apperception.

Carrying out core activities
Core activities carry out the learning process to achieve the necessary competencies and indicators that have been established in the learning implementation plan. Activities use an active student learning approach, types & ndash, kinds of learning models, techniques and learning methods that are tailored to the characteristics of students and subject matters. These include exploration, elaboration and confirmation.

Carrying out closing activities
Closing activities end learning but keep information in minds of the students. They facilitate students to reflect on learning activities by asking what lessons can be learned from today's learning process from both the material and the management of the class (lessons learned). They motivate students to make individual/group study summaries/conclusions. They inform students of the value gained during the learning process and determine follow-up activities in the form of remedial learning, enrichment programs, assignments, counselling services, etc.

According to the process of Ulu's study, the professional development program effected Turkish teachers by use of technological integration and fostering attitudes towards ICT (Information Communication and Technology) in education (Uslu, 2012). That's why information technology encompasses a broad range of terminology that covers all technical equipment that processes and delivers information to supporting learning. Teachers with positive attitudes towards information technology will tend to use information technology to help the learning process (Atkins, N. E., & Vasu, 2000). However, teachers who have a positive attitude towards information technology but assume that they do not have sufficient abilities to teach using information technology will not use information technology in learning (Ropp, M. M., 1999). Therefore, teachers' attitudes towards information technology and teachers' competencies regarding information technology are the dominant factors in the

use of information technology in learning (Collis, B. A., Knezek, G. A., Lai, K. W., Miyashita, K. T., Pelgrum, W.J., Plomp, T., Sakamoto, T., 1996). According to Kelleher in Bingimlas (Bingimlas, Khalid Abdullah., 2009, p. 237), information technology cannot replace teachers who teach in class. However, information technology can provide a positive impetus to scientific learning. To improve the quality of national education, the government has made use of information technology concerning communication and self-development. It is an indicator of professional competence (Ministry of National Education, 2007). This is because the use of information technology in learning will provide a comprehensive learning resource for students.

Methodology

Supervision of education activities is carried out in order to improve learning activities. Currently, the initiative to supervise generally comes from the principal or the supervisor, not the teacher. Ideally, an effort to improve learning activities comes from the teacher concerned, not from another party. Initiatives improve the teaching skills coming from the teacher. It is very important for these to developed. They are seeds that quickly develop into the enhancement of activity awareness-based teaching abilities. These things are at the core of the concept of clinical supervision. This research used the clinical supervision model of Baltacy (Goktalay, Baltacyi, et.al., 2014, p. 2). The concept developed was adopted from Acheson & Gall (Acheson, K.A., & Gall, M.D., 2003). They developed five stages of clinical supervision: 'The CSM cycle includes pre-conference, observation and data collection, data analysis and post-conference reflection stages." The five stages are shown in Figure 1.

Figure 1
Clinical supervision model by Acheson & Gall
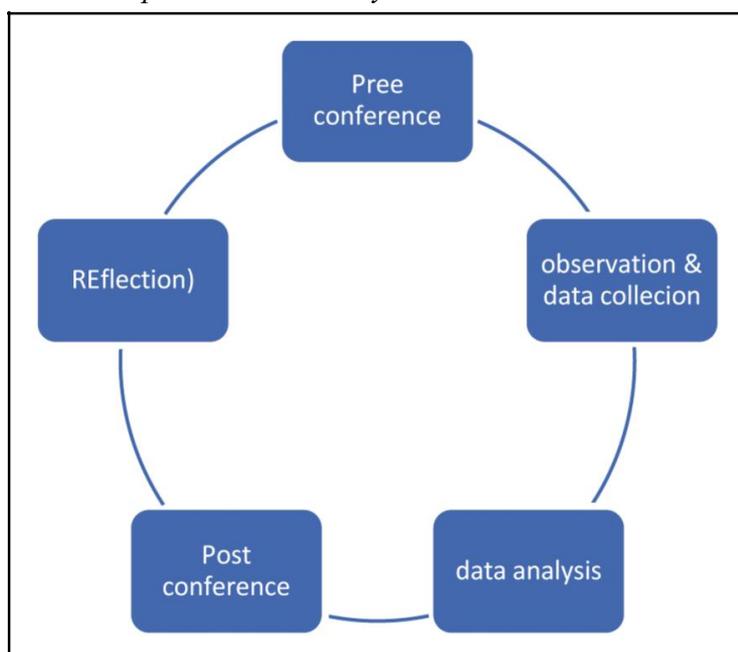
This research uses a mixed method developed by John Creswell (Creswell, 2017, p. 290). This study used a qualitative survey design and data was collected through quantitative and qualitative methods. 33 participants were sampled consisting of 10 principals, 20 teachers, 2 area supervisors and one master supervisor. The method used was explanatory and sequential. In the mixed method analysis stages, the researcher utilised an iterative array of data analysis procedures, including random forest and variable importance plots (Liaw, Andy. & Wiener, Matthew., 2002). This method was used because the initial quantitative phase is followed by a qualitative phase. The subjects of the study consisted of class teachers and subject teachers in Jakarta, the capital city of Indonesia. Schools that were studied consisted of Gunung 01, Pagi Elementary School, Gunung 02, Petang Elementary School, Gunung 03, Pagi Elementary School, Gunung 04, Petang Elementary School, Pulo 01, Pagi Elementary School, Pulo 03, Pagi Elementary School, Pulo 05, Pagi Elementary School, Pulo 09, Elementary School, The Triguna Foundation Pagi and 1956 Elementary School. Each school had 2 teachers. The instruments involved an observation sheet. The study was conducted in several cycles consisting of stages: plan, action, observation through information technology and reflection. Data analysis was descriptive. The cycle ended if the change in teaching ability increased and achieved performance standards. The process of research design was as follows:

First, research and information collection involves conducting a literature review related to clinical supervision. At this stage, the researcher conducts a literature review related to the concept of clinical supervision, teacher teaching competence and information technology. It is used by teachers, supervisors and principals in an effort to realise clinical supervision activities.

Second, planning involved gathering information and conducting initial research to understand teachers' perceptions as well as the perceptions of principals and supervisors of clinical supervision activities. To get this information, the researcher conducted a study through an interview about clinical supervision. The source of the informants included principals, supervisors and teachers. These results are described as basic information in carrying out the following research stages. To conduct interview activities, the researcher made an interview guide.

Third, preliminary forms of the product were developed to carry out planning in the form of developing guidance systems and clinical supervision instruments. At this stage, the research team conducted activities to develop clinical supervision guidelines and clinical supervision assessment instruments for teachers and supervisors. A video recording guide was intended for cameramen (people who carry out video filming activities).

Fourth, preliminary field testing was performed with the instrument by an expert team. Their expert judgement laid out validation guidelines and supervision instruments for teachers and

supervisors. Next, the researcher conducted the first trial of the use of the guide and clinical supervision instruments with 1 teacher, 1 principal and 1 supervisor.

Fifth, product, guideline and instrument revision took place after the use of guidelines and clinical supervision instruments. These were based on input from experts and supervising practitioners, supervisors and principals.

Sixth, play field testing occurred. In this section, the researcher conducted trials on both addictions and clinical supervision instruments with 1 teacher, 1 principal and 1 supervisor.

Seventh, operational product revision made revisions after the users participated in the activity of using guidelines and clinical supervision instruments based on input from experts and supervision practitioners.

Eighth, operational field testing involved carrying out validation tests with a number of samples that could be reached. This involved 12 teachers, 6 principals and 3 supervisors. Data was collected about the use of guidelines and clinical supervision instruments through interviews, observations and questionnaires. The data was then analysed.

Ninth, the final product revision made the final revision as a whole after getting input from the results of activities using guidelines and clinical supervision instruments in the field.

Tenth, dissemination and implementation took place. The research report was submitted to a seminar on research results and also to scientific journals.

Determination of the research sample was carried out through a purposive sampling technique. This is because, in order for the determination of the related sample to be the subject of research, it must have collaboration skills and pay sufficiently intensive attention to the research process. Data collection techniques are carried out through interviews with supervisors, principals and teachers. Instruments are direct researchers assisted with interview guidelines. Related data about expert judgment is collected by inviting education management experts and technology experts on this matter to be experts in educational technology. The instrument used, in the form of an open analysis format, is related to the validation of clinical supervision guidelines and video recording guidelines. Data collection of video recording data is carried out directly by the research team at target schools based on the state/distribution of primary school areas located in the regencies/cities.

Results and Discussion

Findings

Based on the results of the preliminary study, an empirical method was found: First, some school principals, teachers and even supervisors do not fully understand what is meant by clinical supervision. Second, supervision activities are still perceived as principal programs and supervisory programs. Teachers are passive when a principal or supervisor has time to supervise them. Third, building a teacher is one of the duties of a supervisor. Being a school program, if such conditions appear to be passive, teachers need to improve their teaching skills. Fourth, in real conditions, the teachers that must be supervised are many in number. Time is also limited, so information and technology can be used as a strategy to foster teachers by observing the time strategy. This can be done without having to meet in real time at each stage of clinical supervision. The use of media information and technology (IT) communication will continue without the time constraints involved with having to meet regularly and frequently. This condition is the basis of thinking that is visualised in Figure 2.

Figure 2
The first framework
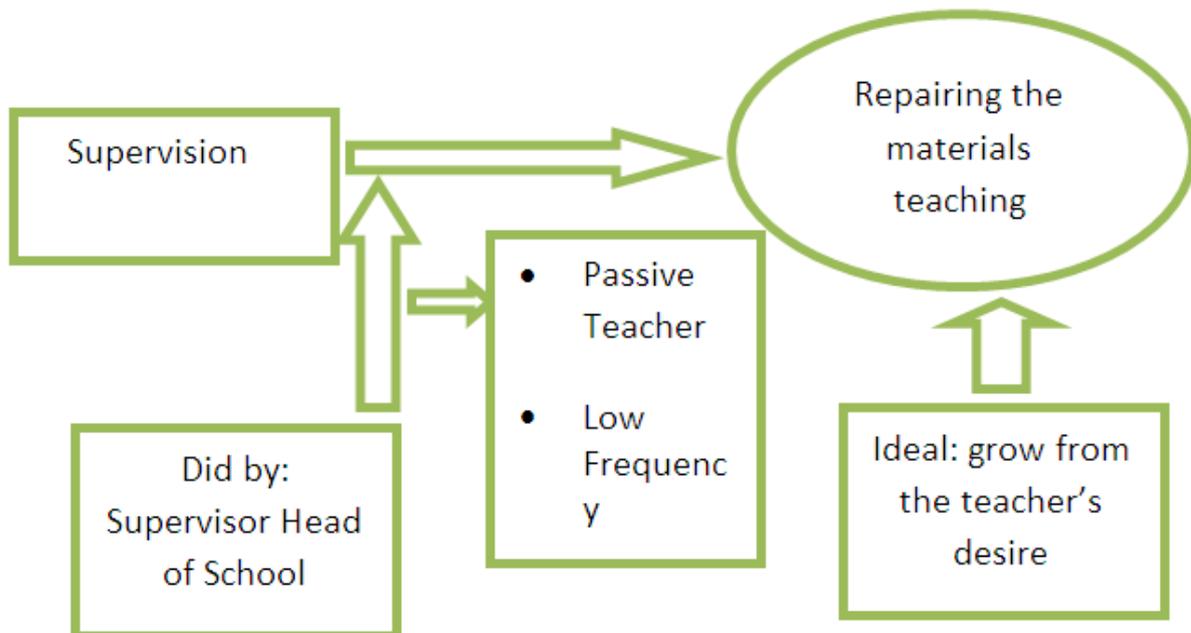
Supervision activities are the main tasks and functions of principals and supervisors. Supervision activities aim to improve learning activities. In these conditions, the teacher appears passive. Efforts to improve learning activities should ideally grow from the teachers themselves rather than from the principal or supervisor. Clinical supervision is an effort made to improve student learning skills and teacher teaching abilities in several stages. The object

of this research is to determine the ability of teachers to carry out learning activities using information technology media. This includes pre-learning and open learning activities, learning core activities, utilisation of learning media/learning resources, learning that triggers and maintains student involvement, process/learning outcomes, language use research and concluding learning activities. Teachers, as research subjects, received clinical supervision treatment.

Descriptive analysis
Cycle I
Pre-learning and opening learning activities
Based on observational data, teachers' abilities to conduct pre-learning and opening learning activities during cycle 1 scored an average of 65.0 pre-test and 66.25 post-test with the following criteria:

Table 1
Conditions of teachers' abilities in cycle 1: Pre-learning and opening learning activities.

No	Interval	Criteria	Pre-test		Post-test	
			Amount	%	Amount	%
1	3.5 – 4	Very good	-			
2	3 – 3.4	Good	3	30	4	40
3	2.5 – 2.9	Enough	6	60	5	50
4	2 – 2.4	Less	1	10	1	10
5	< 1.9	Much less	-			
Total			10	100	10	100

Based on the table, the level of teachers' abilities to carry out the pre-learning component and opening learning activities pre-test is as follows: less = 10%, enough = 60% and good = 30%. Post-test, less = 10%, enough = 50% and good = 40%. The ability of teachers in less saw no change, enough decreased by 10% and good increased by = 10%.

Core learning activities
Based on observational data, teachers' abilities to carry out the components of core learning activities during cycle 1 scored an average of 60.0 pre-test and 66.25 post-test with the following criteria:

Table 2

Conditions of teachers' abilities in cycle 1: Components of core learning activities

No	Interval	Criteria	Pre-test		Post-test	
			Amount	%	Amount	%
1	3.5 – 4	Very good				
2	3 – 3.4	Good	2	20	4	40
3	2.5 – 2.9	Enough	4	40	5	50
4	2 – 2.4	Less	4	40	1	10
5	< 1.9	Much less				
Total			10	100	10	100

Based on the table, the level of teachers' abilities to carry out the components of core learning activities pre-test is as follows: less = 40%, enough = 40% and good = 20%. Post-test, less = 10%, enough = 50% and good = 40%. The ability of teachers in less decreased by 30%, enough increased by 10% and good increased by = 20%.

Utilisation of learning resources

Based on observational data, teachers' abilities to utilise learning resources during cycle 1 scored an average of 62.5 pre-test and 67.5 post-test with the following criteria:

Table 3

The condition of teachers' abilities in cycle 1: Utilisation of learning media/learning resources

No	Interval	Criteria	Pre-test		Post-test	
			Amount	%	Amount	%
1	3.5 – 4	Very good				
2	3 – 3.4	Good	2	20	4	40
3	2.5 – 2.9	Enough	6	60	6	60
4	2 – 2.4	Less	2	20		
Total			10	100	10	100

Based on the table, the level of teachers' abilities to utilise learning media/learning resources pre-test is as follows: less = 20%, enough = 60% and good = 20%. Post-test, enough = 60% and good = 40%. The ability of teachers in less decreased by 20%, enough saw no change and good increased by = 20%.

Learning that triggers and maintains student involvement

Based on observational data, teachers' abilities to conduct learning that triggers and maintains student involvement during cycle 1 scored an average of 66.25 pre-test and 70 post-test with the following criteria:

Table 4

Conditions of teachers' abilities in cycle 1: Learning components that trigger and maintain student involvement

No	Interval	Criteria	Pre-test		Post-test	
			Amount	%	Amount	%
1	3.5 – 4	Very good				
2	3 – 3.4	Good	4	40	6	60
3	2.5 – 2.9	Enough	6	60	4	40
4	2 – 2.4	Less				
	< 1.9	Much less				
Total			10	100	10	100

Based on the table, the level of teachers' abilities to conduct learning that triggers and maintains student involvement pre-test is as follows: enough = 60% and good = 40%. Post-test, enough = 40% and good = 60%. The ability of teachers in less saw no change, enough decreased by 20% and good increased by = 20%.

Assessment, learning outcomes and language use

Based on observational data, teachers' abilities to carry out activities involving assessment, learning outcomes and language use during cycle 1 scored an average of 62.5 pre-test and 67.5 post-test with the following criteria:

Table 5

Conditions of teacher ability in cycle 1: Components of assessment, learning outcomes and language use

No	Interval	Criteria	Pre-test		Post-test	
			Amount	%	Amount	%
1	3.5 – 4	Very good				
2	3 – 3.4	Good	3	30	4	40
3	2.5 – 2.9	Enough	4	40	6	60
4	2 – 2.4	Less	3	30		
5	< 1.9	Much less				
Total			10	100	10	100

Based on the table, the level of teachers' abilities to carry out activities involving assessment, learning outcomes and language use pre-test is as follows: less = 30%, enough = 40% and good = 30%. Post-test, enough = 60% and good = 40%. The ability of teachers in less decreased by 30%, enough increased by 20% and good increased by = 10%.

Concluding learning activities

Based on observational data, teachers' abilities to carry out the components of closing learning activities during cycle 1 scored an average of 65.0 pre-test and 70.0 post-test with the following criteria:

Table 6

The condition of teachers' abilities in cycle 1: Components of closing learning activities

No	Interval	Criteria	Pre-test		Post-test	
			Amount	%	Amount	%
1.	3.5 – 4	Very good				
2.	3 – 3.4	Good	4	40	6	60
3.	2.5 – 2.9	Enough	4	40	4	40
4.	2 – 2.4	Less	2	20		
5.	< 1.9	Much less				
Total			10	100	10	100

Based on the table, the level of teachers' abilities to carry out the components of closing learning activities pre-test is as follows: less = 20%, enough = 40% and good = 40%. Post-test, enough = 40% and good = 60%. The ability of teachers in less decreased by 20%, enough saw no change and good increased by = 20%.

Cycle 2
Pre-learning and opening learning activities

Based on observational data, teachers' abilities to conduct pre-learning and opening learning activities during cycle 2 scored an average of 77.5 post-test with the following criteria:

Table 7

Conditions of teachers' abilities in cycle 2: Pre-learning and opening learning activities

No	Interval	Criteria	Post-test	
			Amount	%
1	3.5 – 4	Very good	2	20
2	3 – 3.4	Good	8	80
3	2.5 – 2.9	Enough		
4	2 – 2.4	Less		
5	< 1.9	Much less		
Total			10	100

Based on the table, the level of teachers' abilities to conduct pre-learning and opening learning activities post-test is as follows: good = 80% and very good = 20%. When compared to the post-test results of cycle 1, the teachers' abilities increased.

Core learning activities

Based on observational data, teachers' abilities to carry out the components of core learning activities during cycle 2 had the following criteria:

Table 8

Conditions of teachers' abilities in cycle 2: Components of core learning activities

No	Interval	Criteria	Post-test Amount	%
1	3.5 – 4	Very good	4	**40**
2	3 – 3.4	Good	6	**60**
3	2.5 – 2.9	Enough		
4	2 – 2.4	Less		
5	< 1.9	Much less		
Total			**10**	**100**

Based on the table, the level of teachers' abilities to carry out the components of core learning activities post-test is as follows: good = 60% and very good = 40%. When compared to the post-test results of cycle 1, the teachers' abilities increased.

Utilisation of learning media and learning resources

Based on observational data, teachers' abilities to utilise learning resources during cycle 2 scored an average of 80.0 post-test with the following criteria:

Table 9

Conditions of teachers' abilities in cycle 2: Utilisation of using learning media/learning resources

No	Interval	Criteria	Post-test Amount	%
1	3.5 – 4	Very good	5	50
2	3 – 3.4	Good	4	40
3	2.5 – 2.9	Enough	1	10
4	2 – 2.4	Less		
5	< 1.9	Much less		
Total			10	100

Based on the table, the level of teachers' abilities to utilise learning media/learning resources post-test is as follows: enough = 10%, good = 40% and very good = 50%. When compared to the post-test results of cycle 1, the teachers' abilities increased.

Learning that triggers and maintains student involvement

Based on observational data, teachers' abilities to conduct learning that triggers and maintains student involvement during cycle 2 scored an average of 75.0 post-test with the following criteria:

Table 10

Conditions of teachers' abilities in cycle 2: Learning components that trigger and maintain student involvement

No	Interval	Criteria	Post-test	
			Amount	%
1	3.5 – 4	Very good		
2	3 – 3.4	Good	10	100
3	2.5 – 2.9	Enough		
4	2 – 2.4	Less		
	< 1.9	Much less		
Total			10	100

Based on the table, the level of teachers' abilities to conduct learning that triggers and maintains student involvement post-test is as follows: good = 100%. When compared to the post-test results of cycle 1, the teachers' abilities increased.

Assessment, learning outcomes and language use

Based on observational data, teachers' abilities to carry out activities involving assessment, learning outcomes and language use during cycle 2 scored an average of 75.0 post-test with the following criteria:

Table 11

Conditions of teachers' abilities in cycle 2: Components of assessment, learning outcomes and language use

No	Interval	Criteria	Post-test	
			Amount	%
1	3.5 – 4	Very good		
2	3 – 3.4	Good	10	100
3	2.5 – 2.9	Enough		
4	2 – 2.4	Less		
5	< 1.9	Much less		
Total			10	100

Based on the table, the level of teachers' abilities to carry out activities involving assessment, learning outcomes and language use post-test is as follows: good = 100%. When compared to

the post-test results of cycle 1, the teachers' abilities increased.

Concluding Learning Activities

Based on observational data, teachers' abilities to carry out the components of closing learning activities during cycle 2 scored an average of 75.0 post-test with the following criteria:

Table 12

Conditions of teachers' abilities in cycle 2: Components of closing learning activities

No	Interval	Criteria	Post-test	
			Amount	%
1.	3.5 – 4	Very good		
2.	3 – 3.4	Good	10	100
	2.5 – 2.9	Enough		
	2 – 2.4	Less		
	< 1.9	Much less		
Total			10	100

Based on the table, the level of teachers' abilities to carry out the components of closing learning activities post-test is as follows: good = 100%. When compared to the post-test results of cycle 1, the teachers' abilities increased.

Discussion

The results of the data analysis show that the teachers' abilities to carry out learning activities has increased after receiving clinical supervision treatment. This can be seen in table 13.

Table 13

The ability of teachers in cycle 1 and cycle 2

No	Component	Cycle 1								Cycle 2			
		Pre-test (%)				Post-test (%)				Post-test (%)			
		L	E	G	VG	L	E	G	VG	L	E	G	VG
	Pre and opening lesson	10	60	30		10	50	40				80	20
2	Core activities	40	40	20		10	50	40				60	40
3	Use of media	20	60	20			60	40			10t	40	50
4	Maintaining student order		60t	40			40	60				100	

| 5 | Assessment and use of language | 30 | 40 | 30 | | | 40 | 60 | | | | 100 | |
| 6 | Cover | 20 | 40 | 40 | | | 40 | 60 | | | | 100 | |

Based on Table 13 above, the teachers' abilities showed an increase after receiving clinical supervision treatment. The ability of the teachers at the beginning (pre-test) was less sufficient according to the criteria when compared to after the clinical supervision (post-test). The increase occurred because of weaknesses found through observation when obtaining initial data. These include a number of factors: Learning implementation plans (RPP) had not yet been prepared before learning activities. They were available but were produced by others. The number of indicators were too much. The involvement or participation of students in learning was lacking. There was no preparation and use of media. All the weaknesses found by observation of the learning activities were discussed with each teacher in question. The results of the agreed discussions were implemented into the final learning activities of cycle 1. Weaknesses that were still found in the observation of learning activities at the end of cycle 1, such as lack of student activity, inappropriate learning media and inappropriate activities to close learning were discussed. These results were carried out in learning activities at the end of cycle 2. Moreover, based on the observation data, it turns out that for all components of learning activities, the teachers experienced an improvement in the criteria excellently and perfectly. According to the criteria above, the results of teacher learning from cycle I and cycle II can be written as follows:

No.	Activities	The availability of average results	
1.	Pre and opening lesson	66.25	77.5
2.	Core activities	66.25	80.0
3.	Use of media	67.5	80.0
4.	Maintaining student order	70.0	75.0
5.	Assessment and use of language	67.5	75.0
6.	Cover	70.0	75.0

Conclusion

Implementation of clinical supervision, based on information technology media, is very influential on the implementation of teacher learning in the classroom. The teachers were more creative to able to show their best effort in every aspect of learning. This is evidenced by the results that were recorded and evaluated together with colleagues. Corrections from friends and supervisors can make a teacher motivated to display their best. Teachers are

getting more excited because coaching is routinely carried out by supervisors. Based on the results and discussion of the implementation of learning conducted by the teachers in the area (guided by VI Kebayoran Baru above): The ability of teachers regarding the implementation of learning increased after receiving clinical supervision treatment between their first level of ability (pre-test), the end of cycle 1 (post-test) and their final assessment after cycle 2 (post-test). This is shown by the following data: (1) pre and open lessons scored 66.25 in cycle I and 77.5 in cycle II, showing an increase of 16.98%; (2) core activities scored 66.25 in cycle I and 80 in cycle II showing an increase of 20.75%; (3) media utilisation scored 67.5 in cycle I and 80 in cycle II, showing an increase of 18.51%; (4) involvement of students in learning scored 70 in cycle I and 75 in cycle II, showing an increase of 7.14%; (5) assessment of process scored 67.5 in cycle I and 75 in cycle II, showing an increase of 11.11%; (6) closing activities scored 70 in cycle I and 75 in cycle II, showing an increase of 7.14%.

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