

# Improving The Ability of Implementing Fun-Based Learning Through Structured Clinical Supervision on Mathematics Teachers at SMA Negeri 1 Barru, Indonesia

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## Abstract

This study aimed to determine how much the increase in the ability of implementing fun-based learning on the mathematics teachers at SMA Negeri I Barru through structured clinical supervision. The method used in this study was a school action research. The population of this study were all mathematics teachers at SMA Negeri 1 Barru which consisted of 6 teachers: 3 males and 3 females. This study was conducted in the odd semester of the 2019/2020 school year for 6 meetings. Data in this study were collected by using observation sheets and structured clinical supervision observation instruments ranging from pre-observation, the observation of learning implementation to the observation of feedback implementation for each supervised teacher. The data were analyzed by using qualitative and quantitative descriptive analysis. The overall results of this study were based on the implementation of structured clinical supervision starting from the results of pre-observation of the teaching and learning preparation: syllabus, lesson plans for teaching materials and assessment instruments, as well as the results of observation of the assessment of the learning process.

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*Keywords:* Structured clinical supervision, Ability to carry out fun-based learning.

## 1. Introduction

Teaching activity is an activity to provide services related to educating or instructing which is planned and prepared by educators as teachers. In implementing learning services, educators need to understand the concept of learning and the way of developing a curriculum in the form of a syllabus, compiling a learning implementation plan (RPP), and implementing it in the form of teaching and learning activities in class and in designated places for teaching and learning activities. Teachers need to first compile a syllabus (curriculum). In compiling this syllabus, teachers need to be guided by content standards in accordance with the subjects taught by them as a form of responsibility as a teacher.

The duties and roles of teachers as professional educators have a complex nature, not only limited to the time of educational interactions in the classroom, which is commonly known as the teaching and learning process. However, teachers also serve as administrators, evaluators, counselors, and others according to their abilities.

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Teachers are professional educators with the main duties of educating, teaching, guiding, directing, training, assessing and evaluating students in early childhood education through formal education, basic education, and secondary education.

Clarity regarding the concept of learning can be achieved if the children find what they are learning instead of knowing it. Therefore, educators always make efforts in all ways and strive so that what students learn at school can be used in their daily lives, specifically fun-based learning.

In connection with the duties carried out by the teachers above, supervisors must definitely master the strategies, methods and techniques of up to date learning and guidance. If the supervisor's knowledge is outdated, especially if he/she relies a lot on experience without being supported by theory, then the supervisor will not receive the respect of the teachers that he/she coaches.

Based on the results of the academic supervision of each school carried out by supervisors, it showed that most of our teachers still use the old pattern of learning, specifically only conventional learning or one-way learning, so that students follow the learning by merely relying on memorization.

From the description above, the writer was interested in expressing the increasing ability to carry out fun-based learning through structured clinical supervision on mathematics teachers at SMA Negeri 1 Barru, Indonesia. Structured clinical supervision of mathematics teachers is an effort to improve the ability to carry out the fun-based learning on mathematics teachers at SMA Negeri 1 Barru, Indonesia.

There are several reasons for the need for this study to be carried out, including: (1) there is no information obtained from the various implementation of structured clinical supervision of teachers, both in terms of quantity and quality, (2) the ability of teachers to carry out the fun-based learning on mathematics teachers needs to be owned and improved by every mathematics teacher at SMA Negeri 1 Barru, so that the information is needed which can influence the improvement of the quality of education, (3) the ability of the mathematics teachers at SMA Negeri 1 Barru is considered as a barometer achieved by teachers in Barru Regency. Moreover, the level of the mathematics teachers' ability in carrying out the fun-based leaning still cannot be measured properly and (4) teachers' MGMP workshops should lead to an increase in creating the fun-based learning conducted by the mathematics teachers at SMA Negeri 1 Barru, in Barru Regency.

## 2. Literature Review

Structured clinical supervision is included as a part of learning supervision. It is stated that clinical supervision is structured, because the implementation procedure is more regular and systematic, and emphasized on the search for causes or weaknesses that occur in the learning process, and then systematically direct efforts to improve these weaknesses or deficiencies. This matter can be exemplified like a doctor who will treat his/her patient, first the doctor will look for the causes and types of the disease by asking the patient, what the patient is feeling, where the pain is felt, how, and so on. After knowing exactly what the disease is, then the doctor gives an advice or an opinion on how best to prevent the disease from getting worse, and at that time the doctor also tries to prescribe a medicine.

In structured clinical supervision, the way of "giving the cure" will be done after the supervisor makes direct observations of the way the teacher teaches, by conducting a "feedback discussion" between the supervisor and the teacher concerned. The "feedback discussion" is considered as a discussion that is carried out immediately after the teacher has finished the teaching process, and aims to obtain feedback about the excellences and the weaknesses that exist during the teaching processes conducted by the teachers and how to produce an improvement on them.

Richard Waller cite in [1] defined clinical supervision as a supervision that is carried out and focused upon the improvement of instruction by means of systematic cycles from the planning, observation, and intellectual intensive analysis of the actual teaching performances in the interest of rational modifications.

Gall & Acheson [2] argued that "Clinical supervision is used to minimize the mismatch (gaps) between real teaching behavior and ideal teaching behavior".

Technically, they stated that structured clinical supervision is a structured clinical supervision model consisting of three stages, namely (1) regular meetings for planning, (2) systematic classroom observations, and (3) return meetings.

From the two definitions above, John J. Bolla in cite [3] concluded: “Clinical supervision is a process of guidance that aims to assist the professional development of teachers or prospective teachers, especially in teaching performances, based on careful and objective observation and data analysis, as a guide for changes in teaching behavior.

Clinical supervision is considered as an instructional system that describes the behavior of supervisors who relate directly to teachers or teacher groups to provide support, assist and serve teachers to improve work results in educating students. Snyder [4] stated that structured clinical supervision is a technology for improving teaching, achieving goals, and combining school needs and personal needs. In line with this opinion, Cogan [5] emphasized that clinical supervision is an effort designed rationally and practically to improve teacher performance in the classroom, with the aim of developing teacher professionalism and improving their process of teaching.

The spirit of structured clinical supervision according to Acheson and Gall [6] is difficult to express in words. Clinical supervision is an interactive process, dealing with a different teaching style of teachers. In order for a structured clinical supervision process to be effective, supervisors and teachers need to work collectively to achieve goals by having the same ideas, emotions and actions to develop teacher professionals. Cogan emphasized that structured clinical supervision is a direct assistance effort provided by supervisors to teachers by the process of teaching, so that the teachers become more effective in carrying out the teaching assignments.

The structured clinical supervision scenario is as follows: (1) Conducting pre-observation meetings between supervision and teacher, (2) Conducting observations when the teacher teaches in class, (3) Arranging strategies and analysis by using mutually agreed instruments. (4) Conducting a supervisory meeting after observing the teacher while teaching in class, in this meeting, it is discussed about the feedback and alternative solutions towards the problems found. (5) Conducting an analysis after the meeting as well as formulating solutions that can overcome teacher difficulties in teaching.

Clinical supervision was originally introduced and developed by Morris L. Cogan [7]. There are two assumptions that underlie the practice of clinical supervision:

1. Teaching is a very complex activity that requires careful observation and analysis through observation and analysis. Learning supervisors will easily develop teachers to manage the learning process.
2. Teachers whose professionals want to be developed by means of a collegial approach rather than an authoritarian way [8].

Structured clinical supervision is the development of teacher performance in managing the learning process [9]. Meanwhile, according to Cogan [5], it is considered as teacher reform coaching activities. According to Sergiovanni [8], there are two objectives of structured clinical supervision: professional development and teacher work motivation, and improve a strong effective learning process.

#### *Hypothesis:*

Based on the study of the theory and framework as mentioned earlier, the following hypothesis is formulated: The implementation of structured clinical supervision can increase the ability to carry out fun-based learning of the Mathematics teachers of SMA Negeri 1 Barru.

### **3. Methods**

This study was conducted at SMA Negeri 1 Barru. The number of mathematics teachers was amounted to 6 people, consisting of 2 males and 4 females. The study was carried out in the odd semester of the 2019/2020 school year which lasted for about four months, which was divided into two cycles.

The factors that were investigated to answer the problems in this study were: 1) Teacher factors, specifically about the teacher’s ability to carry out fun-based learning. In addition, it would also be investigated about the activeness of teachers in the process of implementing learning by means of structured clinical supervision, 2) Student factors, specifically how the participation of students in learning activities: whether the structured clinical supervision developed is in accordance with the aim of increasing the ability of teachers to carry out fun based learning.

Generally, the study was carried out in 2 (two) cycles, which included the stages: planning the implementation of the action, observation, reflection and evaluation.

The four stages of study activities mentioned above were carried out in cycles, both in one study cycle and in the implementation of study in general. Study activities in each cycle began with planning activities that would be implemented in the action stage. During the implementation of the action, the researcher (supervisor) carried out observations to obtain data and information. The data and information collected at this stage would be analyzed as material for reflection. Basically, reflection was conducted during the study. Reflection was basically done to provide feedback in improving the implementation of the next learning. Meanwhile, the reflection at the end of each cycle was conducted with the intention to provide an overview of changes and improvements in the implementation of actions in the next cycle.

The results of data analysis and reflection in cycle I were used as material for consideration for preparing action plans in cycle II as recommendations for supervisors and partner teachers and school administrators, both for the implementation of action research in the future and in implementing other supervision activities on a regular basis.

#### *Performance Indicators*

For the purposes of the analysis, a category was compiled with the requirements for the completeness of the implementation of the duties as stated in the technical guidelines for the implementation of supervision of learning activities in accordance with the standard process of Permendiknas No. 41 of 2007 that applies to schools (Depdikbud, 2016: 158).

Table 1 The Category was Compiled with the requirements for the Completeness of the Implementation

Category	Percentage 9%)
Very Good	86-100
Good	70-85
Sufficient	55-69
Insufficient	< 55

## 4. Results

This section discusses in detail the results of the study which consists of three parts: (1) quantitative results, (2) qualitative results and (3) written results of teacher responses. The quantitative result is a description of the level of teacher mastery through the results of the final evaluation of cycle I and cycle II as a reflection of the implementation of fun-based learning of the teachers at SMA Negeri 1 Barru which is expressed in the percentage of success.

Qualitative results are the formulation of the study results in the form of statements aimed at proving the hypothesis proposed in this study. The statement was based on data obtained from observations during the learning process and the responses given by students in writing at the end of each cycle.

### *4.1. Pre-Observations*

The Results of Pre-Observation of fun-based Learning Activities on the Mathematics Teachers at SMA Negeri 1 Barru are as follow.

Table 2. The initial ability score in implementing fun-based learning of the mathematics teacher at SMA Negeri 1 Barru

No.	Teachers' Name (Initial)	The average score for each Indicator					JML Score	Percentage	Category	Follow-up
		A	B	C	D	E				
1	TT	16	11	24	24	14	89	74.16	Good	Individual Guidance
2	YD	16	10	24	24	15	89	74.16	Good	Individual Guidance
3	RP	16	8	21	22	13	80	66.67	Sufficient	Structured Guidance
4	NR	15	6	20	22	13	76	63.33	Sufficient	Structured Guidance

No.	Teachers' Name (Initial)	The average score for each Indicator					JML Score	Percentage	Category	Follow-up
		A	B	C	D	E				
5	HK	15	6	20	22	12	76	63.30	Sufficient	Structured Guidance
6	NA	16	8	23	24	13	84	70.00	Good	Individual Guidance
Average Percentage of Achievement		78.33	51.04	68.75	71.87	67.5	68.61	68.61	Sufficient	Individual Guidance

Note:

A = Preliminary

B = Exploration

C = Elaboration

D = Confirmation

E = Closing

From Table 2 above, it was found that classically, the teacher's ability to carry out fun-based learning of the mathematics teachers at SMA Negeri 1 Barru according to the results of the analysis of preliminary observations had an average score amounted to 68.61% in the sufficient category, and the average score of each individual were: TT (74.16%) in the good category, YD (74.16%) in the good category, RP (66.67%) in the sufficient category, NR (63.33%) in the sufficient category, HK (63.33%) in the sufficient category, and NA (70%) in the good category. Referring to this matter, the supervisor (researcher) concluded that most of the mathematics teachers at SMA Negeri 1 Barru in carrying out fun-based learning still had sufficient abilities.

#### 4.2. Results of the Final Evaluation Analysis of Cycle I

The results of the descriptive analysis of data regarding the mastery of the teacher's ability to carry out fun-based learning based on the results of the final evaluation of cycle I can be summarized in table 3 below:

Table 3. The results of the final evaluation analysis of cycle I on fun-based learning activities of the mathematics teachers at SMA Negeri 1 Barru.

No.	Teachers' Name (Initial)	The average score for each Indicator					Score	Percentage	Category	Follow-up
		A	B	C	D	E				
1	TT	20	13	28	30	19	110	91.67	Very Good	Individual Guidance
2	YD	20	13	26	30	19	108	90.00	Very Good	Individual Guidance
3	RP	17	11	25	28	17	98	81.67	Good	Structured Guidance
4	NR	15	11	24	26	16	92	76.67	Good	Structured Guidance
5	HK	17	11	25	27	17	97	80.83	Good	Structured Guidance
6	NA	16	12	26	28	14	96	80.00	Good	Individual Guidance
Average Percentage of Achievement		78.33	87.5	73.96	80.21	88.02	96.67	83.19		Structured Guidance

Note:

A = Preliminary

B = Exploration

C = Elaboration

D = Confirmation

E = Closing

From Table 3 above, based on the results of the final evaluation analysis of cycle I which was carried out on October 3, 2019, it was found that classically, the teachers's ability to carry out fun-based learning of the mathematics teachers at SMA Negeri 1 Barru according to the results of the evaluation analysis of cycle I had a score amounted to 83.19% on average or was in the good category, and individually: TT had a score amounted to 91.67% in the very good category, YD had a score amounted to 90% in the very good category, RP had a score amounted to 81.67% in

the good category, NR had a score amounted to 76.67% in the good category, HK had a score amounted to 80.83% in the good category, and NA had a score amounted to 80% in the good category. Regarding to the results, it can be concluded that the implementation of the mathematics teachers' ability of SMA Negeri 1 Barru, Indonesia was generally still in the sufficient category, so that the supervisors need to provide recommendations that the mathematics teachers of SMA Negeri 1 Barru, Indonesia must be guided both individually and in groups in preparing from preparation (RPP), tools, learning media, teaching materials for strategies and assessment of attitudes, knowledge and skills including the performance of the teachers in facing students in the learning process, so that the implementation of structured clinical supervision can be conducted properly to improve the ability of teachers to carry out the fun-based learning.

#### 4.3. Reflection I

After the learning activities had been carried out, it was continued by the reflection to discuss the results of observations carried out by the teacher on October 17, 2019. Based on the results of observations of this structured clinical supervision activity, it was found that most of the abilities of mathematics teachers at SMA Negeri 1 Barru had not increased, they were not being able to compose the materials teaching on fun-based learning and to use the learning media, especially the use of ICT through Power Points, then the supervisor (researcher) recommended that: Before starting the learning process, the supervisor tries to prepare a video camera with the intention of teacher observation in carrying out the learning process. It is intended that these recordings are recorded and the results of this recording are played back in front of the teacher who has finished being observed and are welcome to correct their own performance, with the intention that the teachers are able to correct themselves to improve the follow-up of learning in addition to the supervisor who always providing assistance to teachers who experience difficulties, especially the use of ICT, so that the learning process can be conducted more effectively.

#### 4.4. The Implemenation of Final Evaluation of Cycle II

The results of the descriptive analysis of data about the mastery of the teacher's ability to carry out fun-based learning based on the results of the final evaluation of cycle II can be summarized in table 4 below:

Table 4: The results of the final evaluation analysis of cycle II on fun-based learning activities of the mathematics teachers at SMA Negeri 1 Barru.

No.	Teachers' Name (Initial)	The average score for each Indicator					Score	Percentage	Category	Follow-up
		A	B	C	D	E				
1	TT	20	15	30	32	19	116	96.67	Very Good	Structured Monitoring
2	YD	20	15	31	31	18	115	95.83	Very Good	Structured Monitoring
3	RP	20	14	29	31	18	112	93.33	Very Good	Structured monitoring
4	NR	19	11	26	29	17	102	85	Good	Structured Guidance
5	HK	18	12	27	29	17	103	85.83	Good	Structured Guidance
6	NA	19	12	26	29	16	101	84.17	Good	Structured Monitoring
Average Percentage of Achievement		78.33	87.5	73.96	80.21	88.02	96.67	90.14		Individual Guidance

Note:

A = Preliminary

B = Exploration

C = Elaboration

D = Confirmation

E = Closing

From Table 4 above, it was found that classically, the teacher's ability to carry out fun-based learning of mathematics teachers at SMA Negeri 1 Barru according to the results of the evaluation analysis of cycle II had an average score amounted to 90.14% in the very good category, and Individually: TT had a score of 96.67% in the very good

category, YD had a score of 95.83% in the very good category, RP had a score of 93.33% in the very good category, NR had a score of 85% in the good category, HK had a score of 85.83% in the good category, and NA had a score of 84.17% in the very good category. Regarding to this results, it can be concluded that the implementation of structured clinical supervision activities can improve the ability to carry out fun-based learning of mathematics teachers at SMA Negeri 1 Barru.

#### 4.5. Reflection II

After the learning activities were completed, it was continued by the reflection to discuss the results of the observations carried out by the teacher, then the supervisor (researcher) provides recommendations that: Before carrying out the structured clinical supervision, the supervisor together with the teacher identifies the approach or learning method to be used in class: (i) problems faced by the teacher, (ii) problems faced by students, (iii) learning materials, (iv) learning steps, (v) the media used by the assessment system to be used, then preparation evaluations starting from the syllabus, lesson plans, and teaching materials used, as well as the assessors of the learning process, so that teachers no longer experience difficulties in implementing the learning process starting from the preliminary stage, core activities to closing activities.

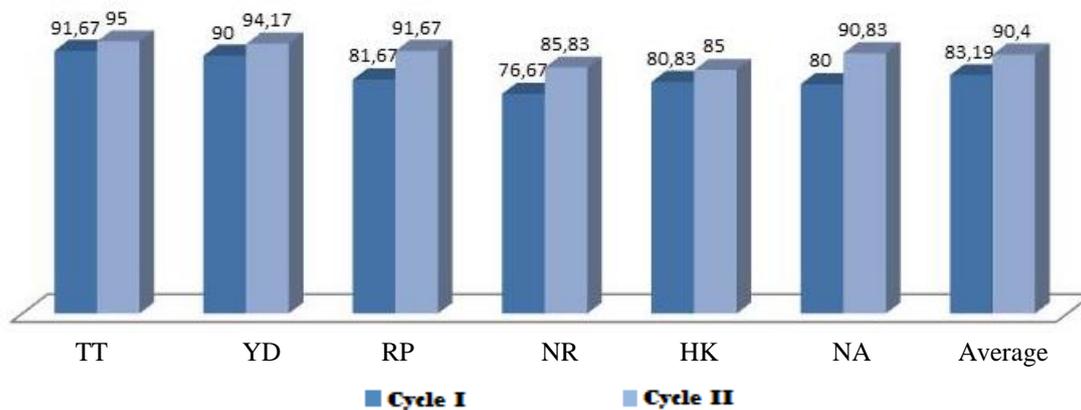


Fig. 1. Graph of the mathematics teacher's ability to carry out fun-based learning at the final of cycle I and cycle II at SMA Negeri 1 Barru (in Indonesia)

The graphic figure above shows that there was an increase in the ability of mathematics teachers at SMA Negeri 1 Barru to carry out fun-based learning by means of structured clinical supervision for 2 cycles.

## 5. Discussion

Based on the results of the analysis on each implementation of structured clinical supervision of mathematics teachers at SMA Negeri 1 Barru for 6 times, it was found that the implementation of structured clinical supervision can improve the ability of mathematics teachers to carry out the fun-based learning as evidenced by the results of the analysis of structured clinical supervision of mathematics teachers at SMA Negeri 1 Barru, namely the results of preliminary observations which described that the ability of teachers in the implementation of fun-based learning is still limited, this can be found from the preliminary observation which indicated that the mathematics teacher at SMA Negeri 1 Barru had an average ability amounted to 68.61% in the sufficient category.

Based on the analysis results of each implementation of structured clinical supervision for 6 meetings, in cycle I and cycle II, there was an increase in the ability of teachers to carry out the fun-based learning, this was indicated by the results of the structured clinical supervision analysis of each mathematics teacher at SMA Negeri 1 Barru: the evaluation of cycle I indicated that in the preliminary stage, there were still 87.5% of teachers who were in the good category, the results of the evaluation in cycle II were amounted to 95.83% in the very good category, the core activities included: (1) Exploration of the results of the final evaluation of the cycle I (73.96 %) in the good category, the results of the final evaluation of cycle II increased to reach 82.29% in the good category, (2) Elaboration of the results of the final evaluation of the cycle I was amounted to 80.21% in the good category, increased to reach 88.02%

in the very good category, (3) Confirmation of the results of the final evaluation of cycle I was amounted to 88.02% in the very good category, increased to reach 94.27% in the very good category, (4) Closing of the results of final evaluation of cycle I was amounted to 85% in the very good category, increased to reach 87.5% in the very good category, this can be found that the implementation of structured clinical supervision had an increase in teachers in implementing fun-based learning.

## 6. Conclusion

Based on the data collected during the school action research by using structured clinical supervision, it can be concluded; The implementation of structured clinical supervision can increase the teachers motivation in implementing the fun-based learning, this can be found from changes in the attitudes of teachers and students in the form of: (1) structured clinical supervision can increase motivation in carrying out fun-based learning, (2) structured clinical supervision can increase the ability of teachers to prepare preparations in carrying out fun-based learning processes, namely syllabus, lesson plans, and teaching materials, (3) The implementation of structured clinical supervision is very helpful in carrying out fun-based learning.

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