Efficiency improvement of teacher performance in learning through periodical collaborative educative supervision at Girsip Senior High School 1

Saor Boni Tua Sihotang

Abstract
The vision of education leads to improving the quality of education that will ultimately improve student learning outcomes. The quality of education has certainly been influenced by many components. This research is aimed to examine the effectiveness of headmaster supervision towards the teacher performance at Girsip State High School 1, Simalungun and the influence of supervision itself towards the teacher performance. This research is the "ex post facto research, its subject is the teacher of Girsip Simalungun District State High School 1, with the total number of 31 people. The collecting data technique used the questionnaire and the descriptive and quantitative data analysis. Furthermore, the presentation of data uses a tabulation technique or percentage of answers from all respondents. The result of this study has shown: (1) the implementation of school principal supervision includes preparation, methods and instruments, determination of evaluation procedures and application of follow-up evaluation results, which are in the "good" category in cycle I and in the "very good" category in cycle II. (2) the teacher performance which includes the preparation of lesson plans, learning processes, evaluating learning outcomes, and evaluating learning accuracy are in the "good" category in cycle I and in the "very good" category in cycle II. (3) the implementation of supervision of school principals contributed the average efficiency on teacher performance by 85.44% in cycle I and 95.63% in cycle II.

Keywords: efficiency; teacher performance; supervision; collaborative education.

INTRODUCTION

The Constitutions of National System Education of 2003 explained that each renewal of the national education system was aimed to renew the vision, mission and strategy of national education development. The vision of national education includes: (1) Seeking the expansion and equitable distribution of opportunities for quality education for all Indonesian people. (2) Assists and facilitates the potential development of the nation as a whole from an early age to the end of life in order to implement the learning community. (3) Increase the readiness of input and quality of the educational process to optimize the formation of moral personality. (4) Increasing professionalism and accountability of
educational institutions as centers of knowledge, skills, experience, attitudes, and values based on national and global standards, and (5) empowering community participation in the administration of education based on the principle of autonomy in the context of the Republic of Indonesia.

The vision of education above is lead to improving the quality of education, which will ultimately improve students’ learning outcomes. The quality of education is certainly influenced by many components. (Makmun, 2015) describes three main components that are interrelated and have a strategic position in teaching and learning activities. The three components are curriculum, teacher, and learners (students).

A teacher must have adequate knowledge in both of academic and pedagogical fields. According to (Djazuli, 2016), teachers are required to have insights related to the subjects and educational content they teach to students. Both insights are a unity that cannot be separated. Teacher must always improve his professional abilities, knowledge, attitude and his skills in continuously in accordance with the development of science and technology. According to Director General of Primary and Secondary Education Ministry of National Education (Ditjen Dikdasmen, 2017), teacher must fulfill the three competencies standard which is: (1) Management competency of Learning and Educational Insights; (2) Academic/Vocational Competencies according to learning material; and (3) Professional Development. The three competencies aimed to ensure that teacher’s quality is able to provide good learning as well ultimately improves the quality of Indonesian education.

In order to achieve above three competencies, schools must implement guidance to teachers through the activities of workshop, Penilaian Kinerja Guru (Teacher Performance Assessment), discussion, or educational supervision. Those things must be performed periodically, the performance and insight of teachers increases. Based on the discussion was conducted in State High School 1 Girsip. The low of performances and knowledge from teacher caused as follows: (1) the low awareness of teachers to learn; (2) the lack of opportunities of teacher to participate in training, both in regionally or nationally; (3) the lack of effectiveness PKG; (4) educational Supervision aimed at improving the learning process tends to focus on administrative aspects (Pusbangtendik, 2018). The learning process based on the curriculum which has been prepared by each university because it has an autonomous right to higher education (Zulyadaini, 2020).

As refers to the process of teachers’ performance and knowledge improvement in State High School 1 Girsip, It is need a research related to the problem mentioned above, thus, this research aims to analyze the effect of educational supervision collaborative in periodically to improve the effectiveness of teacher performance. Afterward, this research is only focuses to educational supervision, due to limitation of the study.
**RESEARCH METHODOLOGY**

This research is an action research, within using qualitative and quantitative approach. Collecting data Technique in this research is consists of three primary activities. There are the several factors investigated by researchers, as follows:

1) Researchers (School Principals), seek an increase in the ability of teachers in making learning plans, implementing, assessing learning outcomes, and carrying out the follow-up to the assessment of student learning outcomes before and conducting research.

2) Learning, attention to the learning effectively in the class which is managed by the teacher by implementing learning strategies that are appropriate to the material.

3) Teacher, attention to motivate the student’s learning and result learning, which can be seen in the results of the national final examination scores, specifically subjects in Indonesian, English and mathematics.

This research is an action research, the implementation is carried out in cycles and Implementation for two cycles. The cycles are a series of mutually sustainable, meaning that the second cycle is a continuation of the first cycle. Every cycle there is always preparation, implementation, monitoring and evaluation, and reflection. First, the activity is to collecting the preliminary data. Secondly, the result analysis data in the end of each cycles, and thirdly, the other response from teacher to the implementation of educational supervision in collaborative model.

Data Analysis Techniques namely with the data that has been collected analyzed using qualitative and quantitative analysis. Qualitative analysis is used to explain changes in teacher behavior in learning and researcher behavior in implementing teacher supervision. The quantitative analysis is used to determine the success of teachers and students based on teacher competency standards set by the Ministry of Education and Culture as follows:

- a. Value 81 – 100 = Very good (A)
- b. Value 76 – 80 = Good (B)
- c. Value 55 – 75 = Adequate (C)
- d. Value 0 – 54 = Deficient (D)

Indicator of success achieved by researchers in this study is when the average percentage of success of the overall teacher increases. While the benchmarks of the success value of a teacher is >75. Aspects of teacher performance are used as indicators of success, including: preparing learning plans, implementing learning, assessing student achievement, implementing follow-up on the results of student achievement assessment. Increasing the effectiveness of teacher performance will make the learning process more effective and maximal and be able to motivate students by increasing their learning outcomes.
The collected data is analyzed using the qualitative and quantitative analysis. Qualitative analysis is used to explain the change of teacher attitude in learning and research attitude in implementing the teacher supervision (Moleong, 2016). Meanwhile, there are quantitative analysis is used to knows the success of teacher and student based in teacher competency standards set by the Ministry of Education and Culture (Department Pendidikan dan Kebudayaan Indonesia).

This research implemented in State High School 1 Girsip Simalungun District in the 2019/2020 academic year. In that year, many research result which not aimed at improving the quality of education. Researchers at State High School 1 Girsip, Simalungun District because it is a school assisted by researchers. The research was conducted in the 2019/2020 academic year, and during these times, the researcher collected preliminary data, arranged a supervision program, carried out supervision, analysis, and follow-up.

Because this research is an action research, hence the implementation is implemented in a cycle which is divided for two cycles. The cycles are the series that mutually sustainable, it means the second cycle is continuation of the first cycle. Each cycle is always having the preparation for implementation of action, monitoring and evaluation, and reflection (Mukhtar & Iskandar, 2018).

The implementation of this action is conducted by the researcher during the teaching and activity of with the following actions:

1) Conduct teachers’ research while the learning programs through school workshops.
2) Carry out the educational supervision during learning periodically with a collaborative system.

Monitoring is implemented during the research, with the main objective to see the improvement of the teacher’s ability and learning effectiveness conducted by the teacher and the actions of the researcher in supervising the teacher (Aqib, 2016).

Afterwards, the reflection is an activity including analysis, synthesis, understanding, explaining and concluding all of the information obtained from the preparation and action. The reflection result used for improvement in the next cycle. The researcher (or in this case is also as the headmaster) and teachers in this step are discussing the process of action implementation that performed based on observation result during the teachers are preparing lesson plan, implementing the learning process, performing follow-up on the results of student achievement evaluation and the researcher taking action (Indriana, Natajaya, & Sunu 2014).

RESULTS AND DISCUSSION

Cycle I findings

Preparation of Cycle I. Based on the collection data, almost all of the teachers are able to make the preparation, however the results is still lacking if
it is measured with the available indicators. The results can see in the Table 1 as follows.

Table 1. Observation result preparation of cycle I

| No. | Indicator                                                                 | Total of teachers | Total of successful teacher (Score > 75) | % success |
|-----|---------------------------------------------------------------------------|-------------------|-----------------------------------------|-----------|
| 1   | Describing the learning objectives                                       | 31                | 29                                      | 93.54     |
| 2   | Determining the material according to competency                         | 31                | 29                                      | 93.54     |
| 3   | Organizing the material according to order or group                       | 31                | 27                                      | 87.09     |
| 4   | Allocating time                                                           | 31                | 30                                      | 96.77     |
| 5   | Determining the learning method                                           | 31                | 25                                      | 80.64     |
| 6   | Designing the learning procedure                                          | 31                | 25                                      | 80.64     |
| 7   | Determining the learning media                                            | 31                | 26                                      | 83.87     |
| 8   | Determining the appropriate learning resources according to (in the form of book, Modules, computer programs, and its kind) | 31                | 27                                      | 87.09     |
| 9   | Determining the appropriate valuations techniques                         | 31                | 25                                      | 80.64     |

Total of average success 87.09%

Sources: own study

After implemented the discussion and observation of the teachers, the reflection result are obtained the average percentage of teachers’ success is 87.09%. This showed that most of the teachers have been succeed in planning the learning process. From the observation result, it is obtained that there was some teachers who have difficulty in determining the learning method to be used, designing the learning procedures in accordance with the method, choosing the learning media and determining the assessment techniques to be used. However, in formulates the learning objectives, organizing learning and using learning resources, each of teachers is able and successfully applies it.

Learning implementation of cycle I. Description of teacher in implementing PBM based on the specified indicator can be seen in the below sections.

After the discussion and observation of the teachers, the reflection results are obtained which is the average percentage of teacher success is 84.45%. These results indicates that the average teacher is able to open lessons with
appropriate methods, present subject matter properly, apply learning methods and procedures in accordance with those that have been determined. But there are still of some teachers who still teach using conventional methods.

Table 2. The observation result of the implementation of learning action from cycle I

| No. | Indicator                                                                 | Total of teacher | Total of successful teacher (Score ≥ 75) | % success |
|-----|---------------------------------------------------------------------------|------------------|------------------------------------------|-----------|
| 1   | Opening the learning process with the right method                        | 31               | 27                                       | 87.09     |
|     | Presenting subject matter systematically                                  |                  |                                          |           |
| 2   | Applying the learning methods and procedures that have been determined    | 31               | 25                                       | 80.64     |
| 3   | Organizing student activity in the class                                   | 31               | 25                                       | 80.64     |
| 4   | Determining the learning media                                             | 31               | 27                                       | 87.09     |
| 5   | Using the learning resources                                               | 31               | 25                                       | 80.64     |
| 6   | Motivate the students with positive ways                                   | 31               | 30                                       | 96.77     |
| 7   | Interacting with students using communicative language                     | 31               | 25                                       | 80.64     |
| 8   | Giving questions and feedback                                              | 31               | 27                                       | 87.09     |
| 9   | Concluding learning                                                        | 31               | 27                                       | 87.09     |
| 10  | Using time effectively                                                     | 31               | 25                                       | 80.64     |
| 11  |                                                                           |                  |                                          |           |
|     | **Total of average success**                                              | **33**           | **28**                                   | **84.45 %**|

Sources: own study

In using the learning/tools media of practice found some teachers who still rarely use tools that can strengthen learning. Same thing with the use of the learning resources, some teacher still need to be direct and guided in order to be able to use the learning resources in accordance with era and technology. In providing the motivation and interact with student, the average teacher is able and doing well. In fact, each teacher is able to give the feedback to the student.

Assessment of cycle I. The data that obtained in the action research of evaluation section can see in Table 3 below.

After the discussion and observation of the subject teacher, the reflection results are obtained, which is the average percentage of teacher success is 89.60%. These results indicates that the average teacher is able to arrange the question/assessment tools well, present subject matter properly, apply learning methods and procedures in accordance with those that have been determined. Nevertheless, there are still of some teachers who are still teaching using conventional methods.
Table 3. **The assessment of student learning outcomes cycle I**

| No. | Indicator | Total of teacher | The number of successful teachers (Score > 75) | % success |
|-----|-----------|------------------|---------------------------------------------|-----------|
| 1   | Compiling the questions/assessment tools | 31 | 28 | 90.32 |
| 2   | Implementation of assessment | 31 | 29 | 93.54 |
| 3   | Checking the answers/ gives a scores. | 31 | 31 | 100.00 |
| 4   | Assessing learning outcomes | 31 | 30 | 96.77 |
| 5   | Cultivating learning outcomes | 31 | 27 | 87.09 |
| 6   | Analyzing the learning results | 31 | 25 | 80.64 |
| 7   | Concluding the learning results | 31 | 30 | 96.77 |
| 8   | Compiling the resports on learning outcomes | 31 | 25 | 80.64 |
| 9   | Fixing problems/ assessment tools | 31 | 25 | 80.64 |

**The total average success** 89.60 %

*Sources: own study*

**Implementation of cycle follow up I.** The supervised teacher assisted by the researcher to make a planning of learning. Those the criteria are based on the predetermined of indicators including the clarity of learning objectives in accordance with the applied curriculum, the learning material are made as simple as possible and sequential from simple to complex. Determining the specific time allocation and based on the learning steps and learning method, the learning media in contextual and based on the material of students learn. Assessment techniques are based on the skills and material provided.

In the cycle I the implementation of supervision is focused on the collaboration in learning in the classroom. Senior teacher or the teacher who are able to help junior teacher or the teacher who are unable in implemented the learning. Thus, these teachers who are unable in implemented the learning is needed a good example of teaching.

In this research section, the teachers are discussing with other teachers to determine the follow-up assessment since some parts of learning that are not understood well by State High School 1 Girsip teachers. The recommendation need to be followed up on the cycle II is that: implementation of the workshop activity is needed to follow up assessment, dealing with (a) follow up identification of the assessment result, (b) developing a follow up program, (c) implementing the follow up, (d) evaluating the result of the follow up, (e) analyzing the result evaluation program of follow up assessment result.

**Cycle II findings**

**Preparation of cycle II.** Based on the observation result, it reaches the data that almost all the teacher is able to make the learning plan as seen in the Table 4.
Table 4. The observation result of the planning cycle II

| No. | Indicator                                                                 | Total of teacher | Total of successful teacher (Score > 75) | % success |
|-----|---------------------------------------------------------------------------|------------------|----------------------------------------|-----------|
| 1   | Describing learning objectives and determining the material according to competence | 31               | 31                                     | 100.00    |
| 2   | Organizing the materials in order or group                                  | 31               | 29                                     | 93.54     |
| 3   | Allocating time and determining the learning method                         | 31               | 31                                     | 100.00    |
| 4   | Designing the learning procedures                                          | 31               | 29                                     | 93.54     |
| 5   | Determining the learning media                                              | 31               | 29                                     | 93.54     |
| 6   | Designing the learning media and determining the appropriate learning resources (in the form of books, modules, computer programs and its kind) | 31               | 30                                     | 96.77     |
| 7   | Determining the appropriate valuation techniques                            | 31               | 29                                     | 93.54     |

The total of average success 96.05%

Sources: own study

After implementation of discussion and observation on teachers, the reflection result is obtained that the average percentage of teacher success is 96.05%. This result shows that almost all of teacher in State High School 1 Girsip have been implemented the activity planning well. The results are also shows that mentoring activities and workshop implemented both personally and MGMP is able to improve the effectiveness of teacher performance in planning learning.

Learning implementation of cycle II. The observation result when the teacher supervision in cycle II can be seen in the Table 5 below.

Table 5. The observation result of implementation of the action cycle II

| No. | Indicator                                              | Total of teacher | Total of successful teacher (Score > 75) | % success |
|-----|--------------------------------------------------------|------------------|----------------------------------------|-----------|
| 1   | Opening the lesson with the right method               | 31               | 30                                     | 96.77     |
| 2   | Presenting the systematic subject matter                | 31               | 29                                     | 93.54     |
| 3   | Applying learning methods and procedures that have been determined | 31               | 30                                     | 96.77     |
| 4   | Organizing the student activities in the class         | 31               | 31                                     | 100.00    |
| 5   | Determining the learning media                          | 31               | 30                                     | 96.77     |
| 6   | Using the learning resources                            | 31               | 30                                     | 96.77     |
| No. | Indicator                                                                 | Total of teacher | Total of successful teacher (Score > 75) | % success |
|-----|---------------------------------------------------------------------------|------------------|----------------------------------------|-----------|
| 7   | Motivating the student in a variety of positive ways                      | 31               | 31                                      | 100.00    |
| 8   | Interacting with the student using communicative language                 | 31               | 29                                      | 93.54     |
| 9   | Providing questions and feedback                                          | 31               | 30                                      | 96.77     |
| 10  | Concluding the learning process                                           | 31               | 31                                      | 100.00    |
| 11  | Using time effectively                                                    | 31               | 28                                      | 90.32     |

The total average of the successfulness 96.47%

Sources: own study

After implementing the discussion and observation on subject teacher, thus the reflection result is obtained there are the average percentage of teacher success is 96.47%. These results showed that there has been an increase in the effectiveness of teacher performance in implementing the learning activities and almost all teachers in State High School 1 Girsip have implemented the good results.

The average teacher is already able to open the lesson with the right method. Present the subject matter precisely and sequences. Thus, the material mastery model in collaborative educational supervision needs to be maintained. In applying learning methods and procedures, each teacher has also used the latest approaches such as scientific and contextual by using media and learning resources that are up to date in accordance with the era and technology.

Assessment of cycle II. The observation results of supervision assessment in the cycle II can be seen in the Table 6 as follows.

Table 6. The assessment of learning result student cycle II

| No. | Indicator                                                                | Total of teacher | Total of successful teacher (Score > 75) | % success |
|-----|--------------------------------------------------------------------------|------------------|----------------------------------------|-----------|
| 1   | Compiling the questions/ assessment tools                                 | 31               | 30                                      | 96.77     |
| 2   | Implementation of assessment                                              | 31               | 30                                      | 96.77     |
| 3   | Checking the answers/ gives a scores.                                    | 31               | 31                                      | 100.00    |
| 4   | Assessing learning outcomes                                              | 31               | 31                                      | 100.00    |
| 5   | Cultivating learning outcomes                                            | 31               | 30                                      | 96.77     |
| 6   | Analyzing the learning results                                            | 31               | 29                                      | 93.54     |
| 7   | Concluding the learning results                                           | 31               | 31                                      | 100.00    |
| 8   | Compiling the reports on learning outcomes                               | 31               | 29                                      | 93.54     |
| 9   | Fixing problems/ assessment tools                                         | 31               | 30                                      | 96.77     |

The total average of successfulness 97.12%

Sources: own study
Overall, the average percentage increase in the of teachers’ successfulness in implementing the supervision assessment activities in cycle II was 97.12%. The result is shows that there has been a significant increase from cycle I. On average, almost all teachers in cycle II have done well the assessment techniques and maximum results.

**Implementation of cycle follow up II.** Based on the observation result and reflection, researcher took the initiative to end this action research due to the results obtained after the action had shown satisfactory progress. The teachers’ action which is able increase the teacher supervision result such as: teacher and researcher always work together in making preparation for supervision. The collaboration includes determining the instruments for evaluating, implementing and evaluating the results of students, teachers and researchers always collaborating in implemented learning activities. The researcher is opening the lesson with apperception and using the student schemata, and then it continued by supervised teacher, teacher is implementing the assessment based on the program created.

**DISCUSSION**

The teacher effectiveness of the performance is increasing, in the planning learning seem obvious from the results obtained. This is happen because there are the collaboration between teacher and researcher. The steps that can increase the teacher performance in making researcher preparation are: giving the supervision format and supervision schedule at the beginning of the learning year or first semester. The implementation of supervision is not only performed once, always leaving the development of the learning device one week before the supervision of the learning device. Asking for an assessment format, if the format given at the beginning of the school year is missing, the teacher is asked to photocopy the school files. However, if there are still many formats like the previous formats then the teacher is given back. Along with giving/assembling for the format, the researcher asks for the collection of learning tools that he has made to study the strengths and weaknesses, provides special notes on the sheet to be given to the teacher to be supervised, the researcher in assessing the learning device attentively and does not reflect as an assessor. The researchers act collaboratively. The researcher is guides, directs the teacher who cannot, but the researcher also accepts the positive teacher’s argument. With that, a close relationship is created between the teacher and the researcher. Absolutely, it will bring positive value in the implementation of learning.

In order to increase the teacher performance effectively, hence it is also need to improve the assessment of the student learning outcome. In this research the act that performed in State High School 1 Girsip Simalungun District, it turns out that the implementation of collaborative educational supervision periodically has a positive impact on teachers. For instances, in compile
questions/assessment tools, implementation, checking, process, analyze, conclude, and compile report as well as fix the problem. Before collaborative educative supervision is held, many teachers have difficulty in implementing the assessments.

By increasing the effectiveness of teacher performance, it indicates to be improved in implementing follow-up results of student learning achievement assessments. The steps which can increase the teacher performance in collaborative educational supervision are by making the follow-up program of the assessment result and teacher to discuss about the follow-up program.

CONCLUSIONS AND SUGGESTION

Based on the findings, exposure, reflection, and discussion of the results of the study, in this section conclusions and suggestions can see as follows:

1) The average percentage increase in the efficiency of teacher performance in preparing learning plans occurred significantly from 87.09% in cycle I to 96.05% in cycle II.

2) The average percentage increase in the efficiency of teacher performance in carrying out learning activities occurred significantly 84.45% in cycle I to 96.47% in cycle II.

3) The average percentage increase in the efficiency of teacher performance in implementing the learning process of assessment technique occurred significantly 89.60% in cycle I to 97.12% in cycle II.

4) The average percentage increase in the efficiency of teacher performance in carrying out follow-up assessments of learning activities occurred significantly 80.64% in cycle I to 92.89% in cycle II.

The teacher efficiency of the performance is increasing, in the learning planning it seems obvious from the results obtained. This happens because there are the collaboration between teacher and researcher. In this research the act that performed in State High School 1 Girsip Simalungun District, it turns out that the implementation of collaborative educational supervision periodically has a positive impact on teachers.

The researcher suggests for the further researcher as follows:

1) Supervision to all of the teachers needs to be done periodically and determined at the beginning of the school year (when the division of assignment).

2) Educational supervision turns out to bring improved teacher performance and student learning outcomes if implemented in collaboratively.

REFERENCES

Aqib, Z dkk. (2016). Penelitian Tindakan Sekolah. Bandung: Yrama Widya. (in Indonesian)

Ditjen Dikdasmen. (2017). Petunjuk Pelaksanaan Supervisi Pendidikan di Sekolah. Jakarta: Depdiknas. (in Indonesian)
Djazuli, A dkk. (2016). *Peningkatan Wawasan Guru Agama*. Jakarta: Dirjen Dikdas. (in Indonesian)

Indriana, Y., Natajaya, I N., & Sunu, G. K. A. (2014). Determinasi Kepemimpinan Kepala Sekolah, Pelaksanaan Supervisi Akademik Dan Sikap Guru Terhadap Profesinya Dengan Kinerja Guru SMP Negeri Se Kecamatan Gerokgak. *Jurnal Administrasi Pendidikan UNDIKSHA*, 5(1). Retrieved from https://www.neliti.com/publications/77777/determinasi-kepemimpinan-kepala-sekolah-pelaksanaan-supervisi-akademik-dan-sikap#cite. (in Indonesian)

Makmun, A. S. (2015). *Psikologi Kependidikan Perangkat Sistem Pengajaran Modul pada Psikologi Kependidikan*. Bandung: Remaja Rosdakarya. (in Indonesian)

Moleong, L. (2016). *Metodologi Penelitian Kualitatif*. Bandung: Remaja Rosdakarya. (in Indonesian)

Mukhtar, & Iskandar. (2018). *Orientasi Baru Supervisi Pendidikan*. Jakarta: Gaung Persada Press. (in Indonesian)

Pusbangtendik. (2018). *Supervisi Manajerial dan Supervisi Akademik*. Jakarta: Pusbangtendik. (in Indonesian)

Zulyadaini, Z. (2020). Development of teaching materials in numerical methods. *Ukrainian Journal of Educational Studies and Information Technology*, 8(1), 28-38. https://doi.org/10.32919/uessit.2020.01.03. (in English)

About the author:

**Saor Boni Tua Sihotang**, Department of Education and Culture, North Sumatra, Indonesia. ORCID: https://orcid.org/0000-0001-9158-3210. saorboni@gmail.com