

# Implementation of Academic Supervision of Mathematics Teaching and Learning Process by the Head of SDN in Ciawi Subdistrict, Tasikmalaya Regency

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This research was conducted to describe the implementation of mathematical academic supervision led by the principal of an elementary school in mathematics subjects. This study was performed to realistically review the implementation of academic supervision. The supervision was essential to foster teachers in improving the quality of the learning process. The descriptive study was conducted on the principal of Elementary Schools in the Education and Culture UPT in Ciawi Subdistrict, Tasikmalaya Regency. The results showed that the implementation of academic supervision in mathematics subjects at the Ciawi District Elementary School worked quite well but didn't show optimal results in terms of learning planning, learning implementation plan, implementation of classroom learning, and observation findings and problems found not fully inventoried.

**Key words:** *Teaching, Learning, Mathematics, Elementary School*

## Introduction

The National Education Material Regulation Number 13 of 2007, concerning the Standards for the Head of School/Madrasah, emphasises that a school principal must have five dimensions of minimal competence, namely: personality, managerial, entrepreneurial, social and social competence. The principal/madrasah is a teacher who is given additional assignments as a principal/madrasah. Therefore, he must also have the competencies required to be a teacher, namely: pedagogic, personality, social and professional competencies. One indicator of professional competence is professional development competencies.

The core academic supervision competence is to foster teachers in improving the quality of the learning process. Therefore, the academic supervision target is the teacher in the learning process, which consists of subject matter, syllabus and RPP preparation, selection of learning strategies/methods/techniques, using media and information technology in learning, assessing learning processes and results, and the action research process. Therefore, the general objective of BBM development is to improve academic supervision competencies, which include planning academic supervision programs, implementing academic supervision programs, and following up on academic supervision programs.

Academic supervision consists of a series of activities to help teachers in developing their ability to manage education to achieve learning goals (Glickman et al., 2004). Academic supervision cannot be separated from the assessment of teacher performance in managing learning. Sergiovanni (1987) asserts that the practical reflection of teacher performance assessment in academic supervision is to see the real condition of teacher performance to answer questions. For example: what actually happens in the classroom; what are teachers and students doing in a classroom; which activities, of the overall activities, in a classroom are meaningful for teachers and students; what has been completed by the teacher in achieving academic goals; and what are the strengths and weaknesses of teachers and how to develop them (Sergiovanni, 1987). Based on the answers to these questions, information is obtained about the teacher's ability to manage education. However, one thing needs to be emphasised here; completion of a performance assessment means the completion of academic supervision, however, it must be followed by the follow-up in the form of making an academic supervision program and implementing it as well as possible.

Based on experience and observations, so far academic supervision activities have not been optimal. The study conducted by Arhasy (2010) examines that academic supervision activities carried out by TK/SD supervisors in the Tasikmalaya District is defeated by managerial supervision. Supervision carried out by the principal is one of the educational management processes that must be taken by the principal to correct the consistency or suitability of the planning by an implementation.

Based on the identification of these problems, it seems necessary to conduct an in-depth study of the implementation of academic supervision carried out by the head of the Primary School. In this study, it will be reviewed from the implementation of academic supervision in the teaching and learning process of mathematics in SDN Ciawi Subdistrict, Tasikmalaya District.

## **Research Methods**

This study used a descriptive method with a qualitative approach, which described and analysed the implementation of academic supervision by the principal. The descriptive qualitative method was intended to examine various problems that existed in the field and obtain purposes that were more suitable to the environmental conditions in which the research was conducted. In agreement with the explanation of Sukmadinata (2010), descriptive research is the most basic form of research aimed at describing or describing existing phenomena, both natural phenomena and human engineering (Sukmadinata, 2010). The following explanations are the steps taken in this study.

### ***Preparation phase***

The preparation phase started with determining the academic supervision instrument in the form of observation sheets involving planning elementary mathematics learning, implementation plan of elementary mathematics learning, implementation of elementary mathematics learning, implementation of elementary mathematics learning in the classroom, questions after the observation of elementary mathematics learning in class, identifying the findings of the mathematics learning process, and analysing the results of identification of learning in class. Triangulation of the instrument was then undertaken to review its validity.

### ***Implementation phase***

The implementation phase included the observation of seven components of academic supervision in thirty Public Elementary Schools (SDN) in the Ciawi Subdistrict, Tasikmalaya Regency. One class at each elementary school in the Ciawi Subdistrict was used as an object of research.

### ***Completion phase***

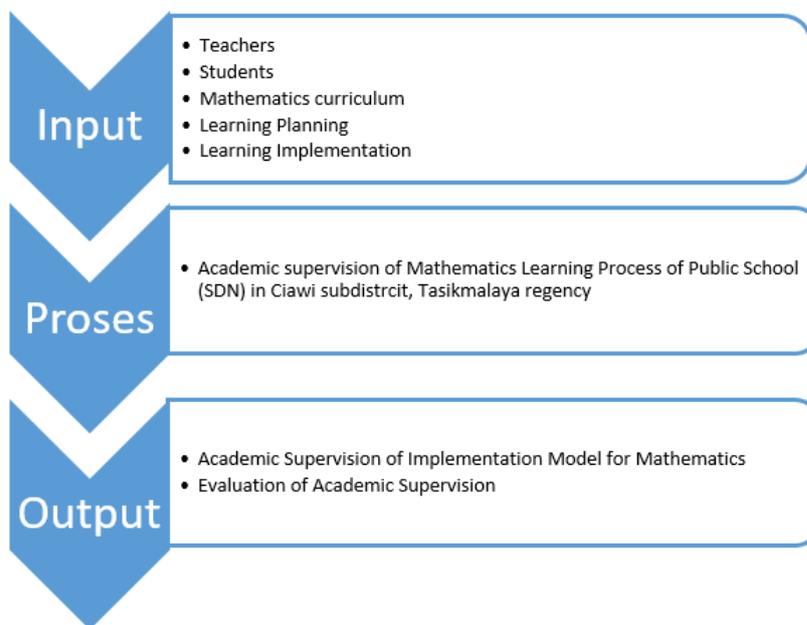
The completion phase comprised the collection of data from the observation of each SDN that was used as the research object, in the form of quantitative data and qualitative data on the implementation of supervision of academic elementary mathematics teaching and learning process. The data was then processed and analysed to answer the research questions.

### ***Conclusion withdrawal stage***

The data on the implementation of academic supervision of the teaching and learning process of elementary mathematics was analysed and interpreted descriptively, then concluded based on the targeted results.

This research was carried out on thirty SDNs under the guidance of the Education and Culture UPT in the Ciawi Subdistrict, Tasikmalaya Regency. The focus of this study involved the implementation of academic supervision on the teaching and learning process of elementary mathematics with the scope of learning planning, implementation plan of learning, implementation of classroom learning; Implementation of findings of elementary school mathematics learning problems; and analysis of the results of the identification of the mathematics learning process. The design used a systematic approach to qualitative studies which included input, process, and output as illustrated in Figure 1.

**Figure 1.** Research design



The data collection techniques carried out in this study through observation are in line with research questions that included the implementation of supervision of the academic teaching and learning process of mathematics. Other techniques included arranging unstructured interviews with principals and teacher representatives from each SDN that were used as a research object.

Data analysis techniques to determine the implementation of academic supervision on the elementary mathematics teaching and learning process in the Ciawi Subdistrict, Tasikmalaya Regency, included qualitative and quantitative data processing regarding academic supervision on the elementary school mathematics learning process; and qualitatively and quantitatively the data was directed to the research question regarding the implementation of academic supervision in the elementary mathematics teaching and learning process.

## Results and Discussion

The implementation of academic supervision on learning planning was monitored in the learning administration component which included the annual program, semester program, syllabus, planned implementation of learning (RPP), education calendar, lesson schedule, daily agenda, list of grades, minimum completeness criteria (KKM), attendance of students, teacher manuals and textbooks. The monitoring of these components was reviewed from the condition with four scale scoring, which included the category of achievement as very good, good, sufficient, and lacking.

The learning administration component was prepared at the beginning of the school year and the beginning of the semester. Every elementary school in the Ciawi Subdistrict has twelve learning administration components that are stated completed, with the score given in the good category. The annual program was prepared by the principal, along with the teacher and school committee, in order to determine the activities of the education process in each class, which consisted of a series of semester programs related to subjects. The other components in the annual program contained the arrangement of resources of educators and education personnel, facilities resources and the interests of the budgetary for a school year. The semester program was an elaboration that must be prepared by each teacher for the determination of the implementation of the teaching and learning process in each semester and according to the effective day based on the annual program. The annual program and the semester program refer to the education calendar that has been established by the subdistrict Education and Culture Department.

The preparation of the syllabus and the learning plan for implementation were translated from the applicable curriculum. The planned implementation of learning is compiled by each teacher by taking into account the competency standards that have been set in accordance with the curriculum. The lesson schedule was arranged at the beginning of the semester based on six effective days each week. The daily agenda consisted of the school's daily agenda and the daily agenda for each teacher. A minimum completeness criteria (KKM) for each subject were set in each school by paying attention to each subject. Each class had student attendance, which meant the presence or presence of students who were reviewed by their presence, absence due to illness, permission or neglect. Attendance lists were listed on special books and attendance boards for each class. Each primary school had a teacher manual for each subject and opened the subject texts that were available but incomplete.

Each primary school in the Ciawi Subdistrict carries out academic supervision on general mathematics learning planning in accordance with the learning administration component as described above. For the sake of the preparation of the syllabus, planning the implementation of learning (RPP) by each teacher is required to develop their profession through other



activities in the teacher working group (KKG), which are implemented in each cluster. For UPT Education and Culture in the Ciawi Subdistrict, it is divided into three KKG clusters, each consisting of ten elementary schools in each cluster.

The implementation plan of mathematics learning is part of the learning planning as described in 4.1. In this section, it is viewed from the identity of the subjects, the complete system of RPP, and the principles of drafting the RPP. Subject identities include classes/semesters, subjects, semester/class, days of academic supervision, competency/core competency standards and basic competencies.

A complete and systematic learning implementation plan (RPP) contains components of education unit identity, subject identity or theme/sub-theme, class/semester, subject matter, time allocation, basic components that students must master, component achievement indicators, learning objectives, material teaching, learning methods, learning media, learning steps (introduction, core, closing) and learning assessment. The principles of RPP preparation include consideration, differences, needs of students, motivating student activities, centering on students, developing a culture of reading and writing, providing feedback and follow-up, linkages and integration between KD, materials, learning activities, indicators of achievement of competencies, and assessment and learning resources in one learning experience. Then, accommodating integrated thematic learning between subjects and the application of information and communication technology in an integrated, systematic and effective manner.

Each headmaster carries out academic supervision by observing the elements as described above, only monitoring availability or 'is there' or 'is there not'. There are no comments on each component of the elements as mentioned above. Every school principal seems to find no weaknesses or weaknesses in each of the systematic and constituent elements of the RPP. The views of each elementary school principal in RPP mathematics subjects are arranged in a complete, systematic way and in accordance with the principles of its preparation. In the complete and systematic element of RPP observation and the preparation of RPP, every component of the improvement was not found. It is as if it is considered true for each of these elements. This shows weaknesses in observation in the implementation of academic supervision regarding the implementation planning of mathematics learning.

The implementation of academic supervision in mathematics subjects in the classroom is in terms of components of preliminary activities, core activities (exploration, elaboration, and confirmation), closing activities, assessment and general components. The components monitored are carried out very well, done well, quite well done, not well done and not done. In preliminary activities, among others, monitoring includes the readiness of students to follow the learning process, apperception activities, explanation of learning objectives or



basic competencies to be achieved, and conveying material coverage in accordance with the syllabus. At the core, activities include exploration, elaboration, and confirmation. The KTSP curriculum is described separately, and in the 2013 curriculum development it is not described separately, which will integrate the use of models, approaches and variations of learning methods. In the 2013 curriculum development, the scientific approach needs to be integrated in accordance with the learning material.

The assessment component includes the teacher carrying out the assessment of learning outcomes, the teacher conveys the achieved comet, and the teacher gives independent assignments to students. The general component elements include the appropriate presentation of the contents of the organised learning material, enthusiasm of the students, doing coherent learning, using appropriate time and using polite, communicative, good and right language. At the end of the observation, a recommendation was submitted by the principal.

The results of academic supervision on the implementation of mathematics learning in the classroom of each elementary school are generally well done, so that it is in a good category. Only a small sector of the school principals in the Ciawi Subdistrict include recommendations that must be followed up by each teacher in the implementation of mathematics learning in the classroom. Implementation of supervision in learning activities certainly needs to be followed up individually, because each school principal must find deficiencies in the series of teaching activities carried out by the teacher in each class. Most (58 per cent) of elementary school principals recorded observations in the form of notes, findings or information about the teacher's business and activities — students in learning, use of media, variations in methods of teaching, suitability of media with material, suitability of methods with learning objectives, interaction of participants learners in the learning process and effective assessment strategies.

Academic supervision in this section includes compilation of questions, identification of learning problem findings, summary analysis of the results of identification of learning and recapitulation of problem findings and alternative solutions to each activity. The questions asked after observation include the teacher's opinion after presenting the learning of the suitability between the plan and the learning process, satisfaction in learning, achievement of learning objectives, student difficulties, teacher difficulties, alternatives to overcome teacher difficulties, invitation to increase learning outcomes and follow-up of academic supervision activities. Most elementary school principals in the Ciawi Subdistrict (56 per cent) can inventory teacher questions and answers after observing teaching and learning activities in the classroom.

The identification of learning problem findings includes learning tools, learning processes and learning assessment. Most (55 per cent) principals in the Ciawi Subdistrict can identify problems found along with alternative solutions and make a summary. Judging from the aspects of learning activities, most (56.30 per cent) principals in the Ciawi District can inventory the problem findings and the alternative solutions to learning mathematics.

## **Conclusions and Suggestions**

### ***Conclusions***

It was concluded that:

- Implementation of academic supervision of mathematics learning, in terms of learning planning, learning implementation plan, carrying out classroom learning and observation after learning, can run in sufficient categories because it only reaches around 56 per cent. Academic supervision activities by the Primary School Principal can be implemented but are not optimal.
- After observing the implementation of academic supervision, most of the Primary School Principals can inventory the problem findings and the alternatives to the problem.

It is suggested that:

- Academic supervision on the implementation plan of mathematics learning needs to be completed with notes of comments and improvement objectives in each RPP component.
- Academic supervision on the implementation of mathematics learning in class needs to be given recommendations by each school principal for follow-up.
- Each Head of Primary School needs to inventory the observable findings, list of questions after observation, identification of problems found and alternative solutions, as well as problem findings from each activity in the learning component.



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