

Implementation of Biological Learning Management to Produce Productive Teachers

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Abstract

The implementation of learning management plays a very decisive role in the teaching and learning process. The biology teaching and learning process is the core of the formal education process, with the teacher as the main actor. This research uses the field study method (Field Research). Sources of data in this study using the purposive sampling technique. The data collected are data collection (field notes), data reduction (data reduction), data display (data presentation), and conclusion drawing/verification. The results of this study are teachers are very skilled in prioritizing the ability to open lessons, prioritizing Mastery of learning materials, referring to planned teaching and learning activities, and prioritizing the ability to use learning media. The implementation of biology learning management in this study includes four main functions in education management: planning, organizing, acting, and evaluating. Thus, good school management certainly produces school principals with good educational management implementation and has productive teachers in the teaching process in schools.

Keywords: Implementation; Learning Management; Biology; Productive Teachers

1. Introduction

Education is an effort to change behavior in life, both individually and in society, and interact with the natural surrounding. Education in schools plays an important role in improving students' academic and non-academic abilities (Priscilla & Yudhyarta, 2021). This role is, of course, related to the main task of the teacher, namely planning to learn, carrying out learning, conducting evaluations, and carrying out a follow-up on the results of the assessment carried out (Alagona & Simon, 2010).

Learning is an effort to make students learn, need to know, be motivated to learn, be willing to learn, and be interested in continuing to learn (Meshko et al., 2020). In learning, the emphasis is on building and seeking student activity (Trisno & Nurdianto, 2015). Then, the meaning of educational management is an applied field of management procedures. Therefore, it can be concluded that educational management refers to using management theory and practice in education or educational institutions (Akpan, 2020; Genc et al., 2018). Academic administration is the process of acquiring and allocating resources to achieve predetermined educational goals (Ibrahim et al., 2017).

Suppose the management concept is applied in the learning process. In that case, learning management is defined as the efforts and actions of the teacher as a learning leader in the classroom carried out in such a way as to obtain results to achieve school program goals and learning. (Kotirde & Yunos, 2014). This means that learning management in schools is the management of several work units by personnel authorized for that, which leads to the success of the learning program (Erpidawati et al., 2019; Pfadenhauer et al., 2017).

The concept of management in the learning process will not work well if management in schools is not good (Sandell & Öhman, 2010; Veselinovska et al., 2010). The main component of management is school leadership, which includes the school's vision and mission, principal's leadership, supports and provides a conducive environment for learning and teaching, can provide competent teacher resources, highly motivated teachers, relationships between humans, society, and environment (Farooq, 2016).

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Then the teacher in professional development, lack of motivation in teaching, limited practical learning in the classroom, having a bad relationship with students, poor classroom management, and the situation of students where the motivation to learn is low, learning attitudes are common, and class performance tends to be low. Inactivity is a factor that causes low school performance (Farooq, 2016).

Management is the systematic arrangement and organization of resources to perform productive (Tsai et al., 2015). Focus on targets to achieve individual and group goals and objectives. In management, managers must have the ability to create, direct, supervise and monitor human activities through coordinated and cooperative human efforts (Akpan, 2020).

Then this definition shows that management is a continuous and dynamic process in coordinating and utilizing organizational resources (Ibrahim et al., 2017). Management is goal-oriented and involves interrelated planning, organizing, leading, and controlling activities (Akpan, 2020).

Educational management involves the process of forecasting and planning, making decisions, and formulating educational policies to achieve established educational goals (Mannion et al., 2013; Perry et al., 2019). It consists in implementing methods of planning, organizing, coordinating, controlling, monitoring, and evaluating human and material resources with the explicit aim of achieving educational goals and objectives.

The effectiveness of learning management cannot be achieved by planning, organizing, implementing, and monitoring functions that can be implemented properly and correctly (Ballantyne & Packer, 2002). To carry out the learning process properly and following the objectives of the curriculum is closely related to the operational management of the teaching and learning process that takes place in the classroom.

Therefore, good learning management is needed so that learning objectives can be achieved. The teaching experience of teachers strongly influences the effectiveness of learning management in schools. Studies say that teachers with 10-15 years of experience have better classroom management skills. So it can be concluded that experience can affect knowledge and the motivation and skills of teachers in terms of classroom management are much better than novice teachers and older teachers. (Farooq, 2016).

Then, to see the quality of learning management in schools is appropriate in decision making, analysis of educational problems and comprehensive, strategic planning for education authorities, considering control over the content, classroom management, communication with students, utilizing academic skills, and having appropriate behavior in the classroom. This is a factor that affects the effectiveness of teaching (Yaghoubi et al., 2018).

In school management, principals can focus more on school management, especially implementing teacher teaching and learning supervision. Therefore, the program for teacher supervision needs to be further developed to increase awareness among teachers and school administration about the importance of management (Darishah et al., 2017).

Learning management plays a very decisive role in the Teaching and Learning Process. The teaching and learning process is the core of the formal education process, with the teacher as the main actor.

2. Research Methods

This study uses a field study method (Field Research) that aims to explain and analyze the implementation of biology learning management at SMA Negeri 3 Samarinda. Sources of data in this study using the purposive sampling technique. Data collection techniques in the form of observation and questionnaires. Then the data analysis was carried out before entering the field, while in the area, and after finishing in the field, which included: data collection (field notes), data reduction, data display (data presentation), and conclusion drawing/ verification.

3. Results and Discussion

3.1. Results

The following presentation provides a description of the data from a research study conducted using a questionnaire on the Implementation of Biology Learning Management at SMA Negeri 3 Samarinda, focusing on (1) Learning planning, (2) Organization in learning, (3) Learning implementation, and (4) Evaluation in learning at SMA Negeri 3 Samarinda.

3.1.1. Learning Planning

At the Learning Planning stage, the School Principal and Biology Teachers have compiled (1) Annual Program (Prota), (2) Semester Program (Promes), and (3) Learning Implementation Plan (RPP).

Table 1. RPP Aspects and Criteria

RPP Aspects	Criteria
SK components, KD, Achievement Indicators, Main Materials, Learning Activities, and Evaluation Resources/Tools/Materials.	-
Learning Objectives include Competency Standards, Indicators, Areas of Interest (comprehensive), and following the curriculum.	-
Study materials/ subject matter	<ul style="list-style-type: none"> a. Learning materials refer to/according to the learning objectives. b. Learning materials are arranged systematically. c. They are learning materials following the curriculum.
Learning methods	<ul style="list-style-type: none"> a. The choice of method is adjusted to the purpose. b. The choice of method is adjusted to the material. c. Determination of the steps of the learning process based on the method used. d. We are structuring the time allocation of the learning process by the proportions. e. Determination of the method based on consideration of students' abilities.
Learning Media	<ul style="list-style-type: none"> a. The media is adapted to the learning objectives. b. Media adapted to the subject matter. c. Media adapted to class conditions. d. The media is adjusted to the type of evaluation. e. The media is adjusted to the ability of the teacher.
Evaluation	<ul style="list-style-type: none"> a. Evaluation refers to goals. b. Include the form of evaluation. c. Lists the type of evaluation. d. It is adjusted to the available time allocation. e. Adapt to the evaluation rules.

The Lesson Implementation Plan (RPP) prepared by Biology Teachers has included:

- (1) Components of Competency Standards (SK), Learning Objectives (KD), Achievement Indicators, Core Materials, Learning Activities, and Evaluation Sources/Tools/Materials,
- (2) Learning Objectives comprising Competency Standard components, Indicators, Objective domains (comprehensive), and aligned with the Curriculum,
- (3) Learning Materials with criteria: (a) Learning materials refer to/align with learning objectives, (b) Learning materials are systematically arranged, and (c) Learning materials align with the curriculum,
- (4) Learning Methods with criteria: (a) Method selection tailored to objectives, (b) Method selection tailored to materials, (c) Determination of step-by-step learning process based on the method used, (d) Arrangement of learning process time allocation according to proportion, and (e) Method determination based on student capabilities, and

- (5) Learning Media with criteria: (a) Media adapted to learning objectives, (b) Media adapted to lesson materials, (c) Media adapted to classroom conditions, (d) Media adapted to evaluation types, and (e) Media adapted to teacher capabilities,

Evaluation with criteria: (a) Evaluation refers to objectives, (b) Includes evaluation forms, (c) Includes evaluation types, (d) Adjusted to available time allocation, and (e) Adapted to evaluation standards.

Aspects of biology learning planning, Learning Implementation Plans (RPP) prepared by Biology Teachers are presented in Table 1.

Table 2. Aspects of Education Management

Learning organization	<ul style="list-style-type: none"> a. Initial activity (opening of learning). b. They are learning core activities. c. Last activity (learning closing).
Learning Implementation	<ul style="list-style-type: none"> a. Prioritizing the Ability to Open Lessons. b. We are prioritizing Mastery of learning materials. c. Referring to the planned teaching and learning activities d. Prioritizing the Ability to Use Learning Media.

Table 3. Biology Learning Activities

Learning opening activities	<ul style="list-style-type: none"> a. Attract students' attention. b. Provide initial motivation. c. It is giving apperception that is linking the previous material with the material to be delivered. d. Submission of learning objectives. e. As a reference for learning materials to be delivered.
Teaching materials delivered by the teacher	<ul style="list-style-type: none"> a. They are presented following the steps in the RPP. b. He explained effectively. c. Give an example. d. It is delivered with broad insight.
Teaching and learning process	<ul style="list-style-type: none"> a. The suitability of the method with the teaching materials delivered. b. We are presenting learning materials by the goals and indicators that have been set. c. They are skilled in responding to and responding to student questions. d. Determination in the use of the available time allocation.
Use of learning media	<ul style="list-style-type: none"> a. The principles of media use guide them. b. Determination of the suitability of the use of media with the material presented. c. She is skilled in the use of learning media. d. Can increase students' attention in learning activities.
Learning evaluation	<ul style="list-style-type: none"> a. Relevant to the goals that have been set. b. I was using the form and variety of assessments. c. It was done following the RPP.

3.1.1. Learning Organization

During the Learning Organization stage, Biology Teachers have structured the learning steps outlined in the Lesson Implementation Plan (RPP), which include: (1) Initial learning activities, (2) Core learning activities, and (3) Final learning activities. Aspect of education management presented at Table 2.

3.1.2. Learning Implementation

During the Learning Implementation stage, Biology Teachers consistently refer to the learning steps outlined in the Lesson Implementation Plan (RPP). During the opening activities of the lesson, teachers strive to: (1) Capture students' attention, (2) Provide initial motivation, (3) Provide apperception, (4) Communicate learning objectives, and (5) Present teaching materials used in the learning process. The teaching process conducted by teachers has met the following criteria: (1) Method compatibility with the presented teaching materials, (2) Presentation of learning materials in accordance with established objectives and indicators, (3) Skillful in responding to and addressing student questions, and (4) Determination in the use of available time allocation. Furthermore, in the use of teaching media, teachers have met the criteria: (1) Adherence to the principles of media usage, (2) Determination/suitability of media usage with the presented materials, (3) Skillful in the use of teaching media, and (4) Ability to enhance student attention in learning activities. Aspect of biology learning activities presented at Table 3.

3.1.3. Learning Evaluation

The learning evaluation conducted by teachers has met the criteria: (1) Relevant to the established objectives, (2) Utilization of various assessment forms and types, and (3) Carried out in accordance with the Lesson Implementation Plan (RPP). Furthermore, upon closing the lesson, teachers perform the following actions: (1) Reviewing the provided materials by asking several questions, (2) Providing opportunities for students to ask and answer questions, and (3) Conducting reflection or making summaries involving students. As for Follow-Up actions conducted by teachers, they include: (1) Assigning tasks to students, both individually and in groups, (2) Informing students about upcoming materials/teaching materials, and (3) Providing motivation for continuous learning. Aspect of closing activities presented at Table 4.

Table 4. Learning Closing Activities

Closing the lesson	<ul style="list-style-type: none"> a. Review the material that has been given by asking some questions. b. Allow students to ask and answer questions. c. It is reflecting or summarizing by involving students.
Follow-up/Follow Up	<ul style="list-style-type: none"> a. Give assignments to students both individually and in groups. b. It informs the material/teaching materials that will be delivered next. c. Motivate always to learn.

3.2. Discussion

The focus of the discussion carried out in this study is a discussion concerning the research data associated with the theoretical justification relevant to the Implementation of Biology Learning Management at SMA Negeri 3 Samarinda. The results of the study were carried out by explaining the research findings as stated in the research objectives, namely describing information about the Implementation of Biology Learning Management obtained through a questionnaire filled out by the Principal and Biology Teacher at SMA Negeri 3 Samarinda based on the national education standard (SNP).

The findings of the implementation of Biology Learning Management in this study include four main functions in education management: planning, organizing, acting, and evaluating (Meshko et al., 2020).

In the Learning Planning stage, the Principal and Biology Teachers have compiled three main activities, namely: Year Program, Semester Program, and Learning Implementation Plans. The Biology Teacher's Learning Implementation Plan has included SK components, KD, Achievement Indicators, Main Materials, Learning Activities, and Evaluation

Resources/ Tools/ Materials. This illustrates that there is a match between biology learning planning and process standards.

Based on the explanation above, it can be understood that good learning planning determines the success or failure of a learning program (Akayoğlu et al., 2020). Learning programs that do not go through good planning tend to fail in the sense that any small and large activity without planning is likely not to be carried out properly (Liu et al., 2020).

Organizing is done to collect the stages of learning activities that will be carried out so that the teaching and learning process can be carried out effectively and efficiently. At the scene of organizing Learning at SMA Negeri 3 Samarinda, the Biology teacher has prepared: initial activities (opening of learning), core activities of knowledge, and final activities (closing of education). Thus, the organization of biology learning at SMA Negeri 3 Samarinda, which is associated with the stages in the learning implementation plan, is following the standard process.

Based on the description above, it can be understood that the organization of learning to complete the learning plan that has been made with the organizational structure or stages of its implementation (Hull et al., 2019; Waltz et al., 2019).

The implementation of the teaching and learning process in the performance of learning management in schools is nothing but an effort to make learning planning a reality by organizing good education with various stages of activities that teachers in implementing learning activities must carry out so that learning objectives can be achieved optimally, effectively, and efficiently (Schumacher et al., 2020). Motivational factors determine the implementation of this evaluation system; several factors influence motivation when accepting the use of new technology tools (internet-based) and define the most influential on educational institutions (González et al., 2020)

Implementation of Learning at SMA Negeri 3 Samarinda, the Biology teacher as the executor of learning in the classroom, always prioritizes the ability to open lessons, prioritizes Mastery of learning materials, refers to planned teaching and learning activities, and prioritizes the ability to use learning media. Thus, the implementation of biology learning in SMA Negeri 3 follows the standard process.

In the final stages of learning at SMA Negeri 3 Samarinda, the Biology teacher always evaluates learning, closes the lesson, and does follow-up. This illustrates that there is a match between the evaluation of biology learning and the standard of assessment.

Thus, the assessment (evaluation) of learning is an activity that seeks to control so that the implementation of the teaching and learning process in the classroom can run according to plan and ensure whether the targets desired by the school are achieved properly. If deviations or planned things are not completed according to the target, it must be ascertained what the obstacles are and what actions will be taken to overcome them.

4. Conclusion

The implementation of Education Management carried out at SMA Negeri 3 Samarinda is very good. The teacher carries the management in planning learning, organizing learning, implementing learning, and evaluating knowledge. These four aspects of control can certainly be done in schools in East Kalimantan. This means that good school management certainly produces school principals with good education management implementation and produces productive teachers in the teaching process in schools.

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