



Curriculum Management of Biological Sciences During the Outbreak of Covid-19 (A Study at Sekolah Menengah Atas 1 Polanharjo Klaten)

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Abstract

A curriculum is a set of guidelines created by educational institutions to achieve learning objectives. Therefore, there needs to be a management system that is usually called curriculum management. This study aims to analyze the management of the biological sciences curriculum during the outbreak of Covid-19. This research uses a descriptive qualitative approach that focused on curriculum management activities: planning, organizing, implementing, and evaluating. The main data source is the vice principal of curriculum affair and Biology teachers. For the supporting data are the students of XI MIPA. The data collection techniques are gathered through interviews, observations, and documentation. Finally, the results show that the syllabus and lesson plan are carried out to formulate the curriculum in an emergency. They are supervised directly by the vice principal of curriculum affair: task sharing, arranging the biology teacher schedule, and determining the study load in organizing activities. The implementation activities will be seen how the implementation of the Biology curriculum, learning process, and supervision by the vice principal of curriculum affair and their team. There will be a meeting of the new school year period for the evaluation activities, a meeting of the midterm period, and a meeting of the semester. It can be concluded that the process of curriculum management of biological sciences in the outbreak has been running well, although some things need to be improved.

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INTRODUCTION

Corona Virus Disease (Covid-19) is an outbreak that has changed many planned activities so that most people and even the State have never experienced various conditions. One of the aspects affected by Covid-19 is education, and it certainly presents a new challenge for educational institutions to face. The outbreak of coronavirus led to two fundamental changes in global education. First, change the way millions of people are educated. Second, new education solutions can bring much-needed innovation (Rafika, 2016).

The existence of a circular letter of the Minister of Education on the Implementation of Education In the Emergency Period of Coronavirus Disease (Covid-19), the education minister decided that the learning process is done online at home. It is an activity without doing face-to-face but rather utilizing the platform available in the learning process to continue despite the absence of direct contact using technology. It shows how Covid-19 has accelerated education transformation because the transformation inevitably has to be done due to the outbreak. In a very short time, the whole world changed the pattern of face-to-face learning in schools into distance learning (PJJ) that heavily relies on technology (Dewi, 2020).

PJJ in Indonesia is regulated through Circular Letter of Kemdikbud No. 4 of 2020 concerning The Implementation of Education in the Emergency Period of Corona Virus Disease (Covid-19). There are three policy points related to online learning; first, PJJ provides a meaningful learning experience without the burden of completing all curriculum achievements for class upgrades and graduations. Second, it can be focused on life skills education, among others, regarding Covid-19. Third, learning activities and assignments may vary according to the students' interests and conditions, including considering access gaps/learning facilities at home.

Although online learning is ongoing, the curriculum must continue to run propositionally and according to an institution's current

circumstances and characteristics. Educational institutions are expected to be able to realize their role effectively in all the limitations of conditions to succeed in applying the curriculum in PJJ.

Learning will not be separated from management activities because it is an effort to succeed in education. Management, arrangement, and related activities are required to achieve the expected objectives. Management needed at this time is curriculum management under the rules, under the conditions, and not burdensome.

Curriculum management is a form of effort or joint effort to facilitate teaching objectives, especially to improve the quality of teaching and learning interactions. There are functions rather than management itself in these efforts, starting from evaluation, planning, and implementation, which is an inseparable unit of series (Aminah, 2019). A curriculum is a set of plans and arrangements regarding the purpose, content, and materials of lessons and ways to implement the learning activities to achieve certain educational goals. With Covid 19, the existing curriculum changed, unlike the curriculum before the outbreak.

SMAN 1 Polanharjo Klaten is a school located in the Klaten district precisely in Polanharjo. This school is located in the suburb of Klaten, but this school has a lot of students and high community support. The existence of covid 19 is certainly very affecting all of the rules and systems implemented in schools. Therefore, it has established the policy taken by the principal to implement the emergency curriculum by simplifying the curriculum independently. Munajim (2020) stated the emergency curriculum is created and implemented by an educational institution in difficulty. Therefore, all activities related to the planning, implementing, and assessing learning outcomes are carried out in an emergency following each educational institution's characteristics. The policy is forced a lot of human resources to quickly adapt and continue to work, innovate, and create for the betterment of the school. It can be proven by the achievements given by the teachers and students in the initiation of solar power sink, which has

been reported in several media writing in Solo Raya. It proves that we must continue developing and creating things that excel in limited conditions so that the school has a good image and indirectly introduces the school to the community.

SMAN 1 Polanharjo Klaten has 69 educators, with 39 senior civil servant teachers and 30 honorary teachers. Despite the many limitations and the need for adaptation, this emergency curriculum must continue to run while carrying out activities that can impact the school's development. This information shows that more senior teachers are expected to provide positive conduciveness. It starts from the fulfillment of curriculum administration to the implementation of teaching carried out in this online learning period. Using the teaching experience that has long been expected to implement the curriculum in a flexible, innovative, creative way and explore all the potential inside provides maximum for the students.

Educators are expected to apply the curriculum agreed with the school, including biology subjects well. Biology teachers must carry out varied learning, innovate, be creative, and efficient, although still online learning. Hopefully, teachers in more senior schools are expected that every material delivered can be well received by the students. Biology Learning is a learning that is identical to the learning process with a scientific approach where participants must be more independently active and develop to understand each material delivered. Therefore, there needs to be mini learning with independent practicum activities that students can do at home with simple equipment and materials as well as curriculum reflections. The biology learning process also needs to be done to get results that can provide a pleasant learning experience and not make students feel burdened with the many tasks given by teachers.

The researcher has conducted preliminary research related to the management of the biological curriculum during the Covid-19 at SMAN 1 Polanharjo Klaten. The school chooses the application of the curriculum used in the

learning process during the outbreak, namely simplifying the curriculum independently, considering that each school has its advantages and disadvantages. The selection of this curriculum becomes the right thing because the school better understands the conditions in its institutions. It follows what Fadilah (2018) conveyed, who stated that the school prepares the curriculum to adjust educational programs to the needs, conditions, and potentials that exist in the school.

Teachers have faced several problems in the education and learning process. First, the curriculum in schools is only considered as teaching signs coupled with the existence of PJJ, so there needs to be a mature readiness to implement the curriculum set properly. Second, many teachers still fumble the curriculum used in this remote learning process, so there needs to be good management. And third, management has not been the maximal application of the 2013 curriculum implemented in schools before the Covid-19. It worsens when all learning processes run online. Teachers should be required to have innovation and creativity in the learning process to impact the students positively; considering the purpose of K13 is meaningful and innovative learning, this becomes a challenge for teachers.

PJJ is now used as a solution to the Covid-19 learning situation. But online learning isn't as easy as one might imagine. The activities use online learning methods where a teacher provides online assignments for students through the Whatsapp Group application or other applications considered effective during the pandemic period. A teacher can carry out online learning at home in various ways. For example, with online lectures, through learning videos delivered using Whatsapp Group, some use unpaid electronic media information from many sources (Ashari, M. 2020).

Biological learning is synonymous with practicum, so it won't be easy to implement using online learning. Practicum has a very important position in this learning. It allows developing and applying science process skills and the development of scientific attitudes that support acquiring knowledge in students. Seeing the

urgency of implementing the curriculum in biology learning and the educational process that must continue to be implemented over time. It hopes that at all times can score a superior generation to face the challenges of changing times. Therefore, teachers must innovate, create, and adapt to the environment in the face of the current situation, especially during the Covid-19. Biology Practicum in the Covid-19 period can be implemented by utilizing audiovisual media in the video. Self-practicum is done by making video-based practicum results reports to facilitate various learning styles and verbal information delivery. In addition, practicum can be carried out using visual media by drawing on several objects observed initially. By drawing more effectively than just reading and paying attention to an object, removing precision and concentration is more directed at the observed thing.

The interview was conducted with one of the students of SMAN 1 Polanharjo Klaten, to find out the initial condition. Based on the results of an interview, he mentioned that he has not been fully able to adapt to the PJJ model because of many factors that affect it. One of them is the content of the material delivered by the teacher concerned so that students do not understand biological material because biology is considered a difficult lesson. In addition, students in answering questions given by teachers are less than maximum. Online learning is also one of the causes of the acquisition of less than full value.

Biology learning will be more optimal when supported by the real experience felt by each student in the learning process with the holding of practicum. It is because biology is closely related to practice. PJJ is a challenge for Biology teachers to manage the curriculum itself to be easy to understand by students. Some of the evidence of uniqueness about the advantages and disadvantages of SMA Negeri 1 Polanharjo so that researcher is interested in conducting research. Therefore, this study aims to analyze the management of the biology education curriculum at SMAN 1 Polanharjo Klaten.

METHODS

The research conducted is using a descriptive qualitative approach. This research aims to describe and analyze the management of the biological curriculum at SMAN 1 Polanharjo Klaten. It focused on the process of curriculum planning, organizing, implementing, and evaluating during the outbreak. Data sources are obtained from main and supporting informants. The primary data in this study are the vice principal of curriculum affair and Biology teachers and for supporting data is students of XI MIPA. The documents obtained are data related to the curriculum. Data collection techniques use in-depth interviews with all informants to see the process of biology curriculum management during the outbreak. Further techniques are using observation done to students and teachers in the learning process of Biology online. There is also documentation, both written and electronic. For data validity techniques, the researcher used triangulation, where comparing data obtained by the main and supporting informant. It is used to check the data to the same source with different methods. However, the analysis techniques use data collection, data reduction, data presentation, verification, and affirmation of conclusions.

RESULTS AND DISCUSSION

The results described in this chapter are oriented to the research objectives that have been outlined. Chapter I analyses the management of the biological sciences curriculum during the Covid-19 of SMA N 1 Polanharjo Klaten. Understanding curriculum management can help teachers apply the principles of learning so that the success of education can not be separated from the continuity of the curriculum. The progress of education depends on the teacher's understanding in carrying out school tasks, including experience related to the curriculum. Curriculum and learning are understood as ideas, actions, or activities to solve educational problems in curriculum and learning.

During the pandemic, the curriculum at SMAN 1 Polanharjo Klaten implemented

curriculum under the minister's direction, where the simplification of the curriculum is independently enforced considering that each school has its advantages and disadvantages. Therefore, selecting this curriculum becomes the right thing because schools better understand the institution's conditions in the outbreak. The vice-principal of curriculum affair assisted by curriculum staff always evaluate curriculum management implemented in schools during online learning. All existing human resources must adapt quickly to this learning process so that the learning process and curriculum structure can run optimally.

Biology is one of the subjects that must be given to students in a science major. A clump of sciences prioritizes scientific approaches usually use many practical methods implemented in the laboratory or school greenhouse. The outbreak of Covid-19 becomes a challenge for teachers in the Biology learning process because the entire movement space of both teachers and students is limited. The policy on PJJ itself becomes an activity that must be considered in delivering distance learning. Therefore, we will see how the management of the Biology curriculum during this pandemic runs.

First, planning biological curriculum management at SMAN 1 Polanharjo Klaten is mandatory to be implemented to run well and smoothly. The main focus is to ensure students learn and teachers teach to achieve the learning objectives created and adapted to the school's goals. It is an initial action used to estimate the future organized systematically or based on activities that support achieving objectives where such activities must be efficient and effective (Maghfirohwati, 2018).

Biological learning management during this outbreak must be mature and systematic so that the learning process can run effectively and efficiently. The main objective of planning Biology learning during this pandemic is that entire learning activities can be received both by students and presented to the maximum and creative by biology teachers even in online circumstances. Hopefully, PJJ can still be implemented well and can achieve the biological

learning objectives. Nasbi (2017) revealed that the curriculum planning process must be planned professionally to achieve the goals.

Meanwhile, in planning the biology curriculum during the Covid-19 at SMAN 1 Polanharjo Klaten, there are several components: the formulation of the curriculum, syllabus, and lesson plan that carried out deliberations involving the subject teachers by presenting a curriculum team. The curriculum formulation within the scope of the educational unit is based on the actual situation that occurs in the implementation of the learning process and other activities that support its performance. Here are the results of a snippet interview with the Vice Principal of Curriculum affair of SMAN 1 Polanharjo Klaten related to the things that need to be prepared to design the curriculum.

"To plan the school curriculum, there are guidelines. The guidelines are taken from the national curriculum, where the schools adjust to the existing circumstances. It needs to be prepared according to what has been planned in the curriculum guidelines ranging from the vision & mission of the school, curriculum structure and content, planning implementation, and assessment. There are academic regulations and an academic calendar in one year of learning because the school has its team for curriculum development and the quality of school assurance. Each individual has their job desk in developing the curriculum. Therefore, it needs to be prepared in the curriculum development process so that all human resources can work optimally."

The curriculum team of SMAN 1 Polanharjo also made policies related to the learning conducted during the Covid-19. The learning process is completed online using various applications that are easy to use by students and teachers. Hopefully, the school can help reduce the difficulties felt by teachers and students with the current online learning conditions. Here is the snippet interview by the Biology teacher :

"Following the government's recommendations, all learning is carried out online so that later the teachers deliver the online education using WhatsApp. Many parents also

make learning videos combined with google classroom; then, for the review and evaluation, it uses google form or Quiz. Now that's for such learning in this school."

For the preparation of the syllabus and lesson plan, it is following with the statement of the deputy principal of curriculum affair, as follows:

"We are teaching using curriculum references and lesson plans. A lesson plan is prepared based on the syllabus, and the syllabus is designed based on the curriculum. It is automatically based on the curriculum; it must be implemented with a pre-made reference that the school has made. And, our curriculum development team for emergencies make a policy that one lesson plan consists of one sheet so that it is not too rambling and directly with the purpose of learning, methods, materials, and assessments as expected in this online learning process. However, the teachers must still make the lesson plan online. It is assisted by curriculum experts who brought the school to guide teachers so that directing lesson plan does not have difficulties."

From the statement in its planning process, the school has formed a curriculum team to organize all activities during online learning based on national guidelines and combined with the characteristics rather than the school's vision, mission and objectives.

Curriculum planning is the first step of the learning process. Therefore, it is also related to creating a syllabus and lesson plan that biology teachers can use as a reference in carrying out biological learning. SMAN 1 Polanharjo Klaten requires the teachers to explain and make a syllabus at the beginning of each semester guided by the national curriculum. It is also combined with the biology material delivered on effective days in school based on the academic calendar. The implementation of this task aims to make students understand the competencies that they must master and the learning materials that they will get in each semester. In addition, teachers are required to complete the lesson plan before the implementation of learning. According to Mawardiyanti's (2018) statement, educators are

required to load the learning devices ranging from the annual program, semester program, syllabus, and lesson plan that must be based and associated with the vision, mission, and objectives of the school. The syllabus and lesson plan is based on the current conditions of online learning, but still, it must be under the schools' vision, mission, and the learning objectives set by the school. It is in accordance with Gurudin (2018), which conveyed that in making a learning device, educators are required to have references and guidelines. According to Wulandari (2018), teachers' readiness to draft lesson plans has been signed and guided by the vice principal of curriculum affairs. It must be under the Biology curriculum guidelines. Biology teachers themselves are very disciplined and timely in collecting online learning devices and are always accepted, which means they are according to the school curriculum guidelines.

The second is the organization of biology education curriculum management at SMAN 1 Polanharjo Klaten. In the biology curriculum organization, there are activities and processes of disputing tasks to Biology teachers. Lubis (2015) stated that curriculum organizing is an overall activity in grouping materials, tools, duties, and personnel responsibilities as teachers who hope to achieve the objectives rather than the school curriculum. The tasks that have been listed in the school curriculum guidelines where biology teachers get 16 lessons that must be carried out are: designing the learning devices, carrying out learning activities, assessment analysis, developing improvement and enrichment programs, filling out student's values lists, making props, developing respect for students' artwork, following curriculum developments, carrying out school assignments, recording the progress of learning outcomes, and organizing classroom and practicality.

For self-study load determination in XI MIPA, biology subject is allocated in 1 week; 4 hours in semester 1 and 4 hours in semester 2. The time allocation of learning and teaching activities is 45 minutes; 25 minutes for online, and 20 minutes for assignments. The allocation time has changed from the time that is usually

done before the outbreak. The division of tasks and preparation of the Biology teachers' schedule is under the vice principal of curriculum affair supervision. He pays attention to the lesson materials contained in the learning devices that have been made as in the syllabus. It becomes part of the teacher to organize what core competencies (KI) and basic competencies (KD) will be given to students. In this period, devices are still made all existing KI and KD, but the school's implementation does not charge teachers to deliver all the existing materials. However, it would be better if the teacher can solve it without burdening the students. If not all delivered, there are several methods where the teachers provide materials to the students to learn independently.

The third is the implementation of biological sciences curriculum management at SMAN 1 Polanharjo Klaten. The curriculum implementation at SMAN 1 Polanharjo is carried out by all teachers coordinated by the curriculum staff. During the interview with the vice principal of curriculum affair, he explained that the implementation of the curriculum must be in line with the vision and mission of the school. Here is a statement by him related to the implementation of the curriculum :

"The implementation is very periodic. There is always coaching from the headmaster to remind us about the school's vision, mission, and purpose. Then, the school makes a kind of cultivated activities so that the vision and mission can be carried out as well as optimally as possible."

The Biology teacher also told that the applied curriculum must be in line with the school's vision, mission, and objectives. Here's a snippet interview with the Biology teacher :

"That is true! The current biology curriculum is related to the school's vision, mission, and purpose because the vice principal of curriculum affair always emphasizes that everything has been included in them. The objectives also must be implemented in the curriculum implementation so that the expected goals can be realized."

Learning is a way or process, or activity that can make a person learned. In other words, it is a way that is deliberately done or designed so that students want to know (Fakhrurrazi, 2018). Distance learning is a teaching and learning activity where teachers and children do not meet directly in school to facilitate remote learning by utilizing technology (Setiawan, 2020).

The implementation of Biology online learning is the teachers use Whatsapp application. According to the teachers and students, using Whatsapp is very effective with the circumstances and characteristics of students in teaching and learning activities. Zhafira (2020) stated that the Whatsapp group became one of the students' most preferred learning media. In Whatsapp, Biology teachers can give questions, tasks, videos, and links. It is in line with Anwar's research (2017), which mentioned that WhatsApp is a chat application that can send text messages, images, sounds, locations, and videos to the intended person to communicate and facilitate the users.

This online learning process remains under the supervision of the vice principal of curriculum affair to see how the appropriate planning of learning devices with the implementation in the online classroom. Many variations in the biological learning process become positive values because they can increase the motivation and spirit of the students so they will not be bored during the learning process.

The implementation of practicum in biology learning has not been optimal because of the limitations of tools and materials in the students' homes. Teachers provide a replacement for practice once or at least given a video of how practicum goes. According to Indrianti (2019), strategy is an important thing in the implementation of learning where there is an interaction between teachers and students that can not be separated. Learning strategies are varied; therefore, teachers must be able to choose and adjust to the students' characteristics. One of them is by utilizing learning tools or media.

Fourth is the evaluation of biological sciences curriculum management at SMAN 1 Polanharjo Klaten. Evaluation is conducted in

three stages: meetings of the new school year period, midterm meetings, and semester meetings. The initial meeting of the year will discuss what is felt in the previous curriculum. It will usually be held in a forum confronted by all human resources in the school to deliver their opinions in the last school year. The evaluation will be followed by all teachers and discuss the advantages and disadvantages of the previous curriculum. If it is good, it can be reapplied in the future, and if there is a lack, it will be reviewed (Indrianti, 2019). Here's a snippet of the interview with the vice principal of curriculum affair :

"Evaluation at the end of the semester and year is a meeting of all school staff for evaluating the curriculum implementation. At that meeting, the teachers deliver the results of the curriculum implementation they have done."

At the meeting, the teachers expressed their opinion that curriculum management implemented in biology subjects has been well seen by the lesson plan. It also immensely impacts improving children's learning outcomes. However, some obstacles can be overcome.

The midterm meeting will also be held to see how the curriculum's implementation impacts biology learning. However, supervising from the vice-principal of the curriculum affair will be conducted to see how the implementation of education takes place. Later, he will provide some input and bits of advice to teachers. Gurudin (2018) stated that evaluating the curriculum itself must be thoroughly implemented to see what obstacles the learning devices face.

The results of this research showed the biology subject had been well done because the learning tools made are under the guidelines of the school curriculum and in line with the school's vision, mission, and goals. The teachers collected learning tools disciplined, and the results are satisfying. The implementation of Biology learning online is following the planning that the teacher has made. However, teachers will still be given input advice and direction so that the implementation can be better than before.

Semester period meetings are held and discuss students' activeness during the learning

process. In this online learning, many students felt bored and saturated. There are some students whose motivation and spirit of understanding are reduced. When the teacher is carried out using the other applications, the students do not attend reasoned their quota runs out. However, with the guidance and direction of the teacher, the problem can be solved.

CONCLUSION

Biology sciences curriculum management at SMAN 1 Pulonharjo Klatem has been running well and under the government rules combined with the characteristics of the school. Their biology teachers also adapt quickly and facilitate efficient, creative, and efficient learning so that the students do not feel saturated and still eager to follow the teaching and learning process during this outbreak of Covid-19.

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