

# Implementation Of The Independent Curriculum In Mathematics Learning For Class X Vocational School In The Administrative City Of East Jakarta

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## Abstract.

*The purpose of this study is to describe: (1) how the teachers prepared mathematics learning activities in an independent curriculum, (2) how teachers implement an independent curriculum in mathematics learning, (3) the obstacles experienced by teachers in implementing an independent curriculum in mathematics learning. Qualitative research was applied in this research. The subject of the research were mathematics teacher of class X SMK in East Jakarta Administrative City. The subjects are selected based on teachers who frequently attended training and independent curriculum webinars and suggestions from the principal. The data collection techniques was done by observation, interviews and documentation. Data validity uses source triangulation. The data analysis technique used Miles and Huberman's concept that are data collection, data reduction, presentation of data and drawing conclusions. The results of the study can be stated as follows: (1) How to organize independent curriculum implementation activities in mathematics learning is done by: (a) preparing Education Operational Unit Curriculum (KSOP) documents, education calendars, annual programs, semester programs to determine effective weeks, (b) preparing learning outcomes (CP), goals learning (TP), learning objectives flow (ATP), student worksheets (LKPD) and appropriate learning methods, (c) compiling teaching modules and their assessments and preparing Pancasila student profile projects. (2) The process of implementing an independent curriculum in mathematics learning carried out by teachers is in accordance with the lesson plan. Teachers use active learning strategies and learning models to make students active in learning activities and teachers only as facilitators. In learning the teacher also carries out several activities to strengthen the profile of Pancasila students to students in order to achieve learning objectives. (3) The obstacles experienced by teachers in implementing an independent curriculum in mathematics learning include: (a) students still have difficulty adapting to offline learning, (b) students' basic knowledge of mathematics is low and students tend to be passive even though they have been given a stimulus by the teacher.*

**Keywords :** *Independent curriculum, mathematics learning and East Jakarta.*

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## I. INTRODUCTION

The curriculum in Indonesia is a learning design that has a very strategic position in all learning activities and determines the process and results of an education carried out. Nasution (2003: 122) said that the curriculum is a plan drawn up to expedite the teaching and learning process under the guidance and responsibility of the school or educational institution and its teaching staff. The curriculum is a place that can determine the direction of education. The success or failure of an education depends on the curriculum used. It's the same as what was said by Nana Sudjana (2005: 25) curriculum is the intentions and hopes that are poured into the form of plans and educational programs implemented by educators in schools. The curriculum is an intention and plan while its implementation is through the teaching and learning process to change students for the better. This shows that the role of the curriculum is very important in the world of education because it will form good outputs as expected. In addition, the curriculum must also be able to provide learning experiences that can develop the self-potential of students into a useful and necessary skill in the future. Curriculum changes in Indonesia have occurred several times starting from the 1968, 1975, 1984, 2004, 2006 and 2013 curriculum. In the course of curriculum changes, there are several problems, such as: Indonesia, which was also affected by the COVID-19 pandemic at the beginning of 2020, which had an impact on the process of learning activities in schools, turned into independent learning carried out at home. Of course, independent learning carried out by students at home has many obstacles. As said by Lia and Woro (2020) some of the problems of online learning are the lack of knowledge about information technology by both students and parents, learning becomes boring and learning assessments cannot be optimal. If this kind of learning system occurs continuously, it will result in learning loss and increasing learning gaps.

Research in Imas Kurniasih (2022: 134) conducted with a sample of 3,391 elementary school students from 7 regencies or cities in 4 provinces in January 2020 and April 2021 showed very bad

indications, namely for literacy skills to experience learning loss equivalent to 6 months of learning and for numeracy skills to experience learning loss equivalent to 5 months of study. This shows that the problem of education in Indonesia is in dire need of the right solution. The strategic step to overcome the learning loss problem by the government is to simplify the curriculum in the form of a special conditions curriculum (emergency curriculum) which turned out to be able to mitigate the learning loss that occurred during the covid 19 pandemic. As time went on with the improvement in cases of the COVID-19 pandemic and the recovery of learning, the Ministry of Education and Culture has designed a new curriculum, namely the independent curriculum. This independent curriculum is expected to accelerate the national goal of education, namely to improve the quality of human resources who are superior and competitive and have noble character and have high reasoning. In a learning activity, the teacher plays a very important role in transferring the knowledge taught to students. In addition, the teacher's role in learning is as an educator, teacher, learning resource, facilitator, mentor, demonstrator, motivator and others. Of the many roles of teachers in a learning process, it can also be said that teachers play an important role and are responsible for achieving a learning goal. This shows that teachers are required to develop optimal learning, one of which is the way the teacher must understand the applicable curriculum. In the implementation of the independent curriculum in the 2022/2023 school year, there are 3 options in which each school is free to choose the category of the independent curriculum that is adapted to the conditions of each school.

The different categories of choices in the implementation of an independent curriculum include independent learning, independent change and independent sharing. From this, the researchers conducted preliminary observations at the Tadika Puri Vocational School which resulted in the teacher not fully implementing the independent curriculum because the teacher was still using the old model of teaching tools and learning was still monotonous which had not been able to make students active. Whereas what is expected in learning in the independent curriculum is learning tools in accordance with the independent curriculum and fun learning for students. Based on the description in on, researchers are interested in conducting research related to the process of implementing the independent learning curriculum in mathematics learning for class X SMK in East Jakarta City because it is necessary to see how the process of implementing the curriculum in a school is. Exponential and logarithmic materials were chosen because they are materials that can train students' mathematical abilities. So it is expected that the exponent and logarithm material is a better and more in-depth teacher in doing learning than other materials. From the explanation above, the purpose of this study is to describe: (1) the way the teacher arranges mathematics learning in the implementation of an independent curriculum for exponents and logarithms for class X SMK in East Jakarta Administrative City, (2) the process of implementing an independent curriculum in mathematics learning with exponents and exponents. the logarithm of class X SMK in East Jakarta Administrative City, (3) the obstacles experienced by teachers in implementing the independent curriculum in mathematics learning material on exponentials and logarithms of class X SMK in East Jakarta Administrative City.

## II. METHODS

The research was carried out at Vocational High Schools (SMK), especially non-technical vocational schools in East Jakarta, namely SMK 39 Jakarta, SMK Karya Ekopin, SMK Al Akhyar, SMK Global Cendikia and SMK Gema Nusantara. In this study, what will be observed is the way teachers implement an independent curriculum in mathematics learning and the obstacles experienced by teachers in implementing an independent curriculum in mathematics learning, so this research is a type of qualitative descriptive research. The subjects in this study were mathematics teachers in class X Private Vocational Schools in the City of East Jakarta Administration as many as 5 teachers from 5 different schools selected from the criteria (1) the teacher was an active teacher in training and webinars on the implementation of the independent curriculum; (2) the teacher is a recommendation from the principal of the school concerned. The data is information about the implementation of an independent curriculum in mathematics learning which includes how to arrange learning activities, the mathematics learning process carried out by the teacher and the obstacles experienced by the teacher. Data from the way teachers organize mathematics learning activities are by looking at the teaching modules compiled by teachers which are confirmed by interviews, data from

the implementation of the independent curriculum in mathematics learning is a learning activity between teachers and students in the classroom, and data on the obstacles experienced by teachers related to the implementation of the independent curriculum. in learning mathematics obtained from interviews with teachers.

Data collection in this study was carried out by using observation, interview and documentation techniques. The observations made in class X SMK majoring in OTKP in the City of East Jakarta Administration were carried out twice at different times so that the recordings of the learning process obtained were ten pieces. Furthermore, interviews were conducted to obtain supporting data related to the implementation of an independent curriculum in mathematics learning. The documentation contained in the teacher's teaching module is carried out to determine the learning outcomes, strategies and learning models used by the teacher as well as the steps in learning. The data obtained during observations and interviews were then compiled in an interview transcript and then analyzed related to the implementation of the independent curriculum in mathematics learning. The validity of the data used in this study is source triangulation because this study uses five vocational high school mathematics teachers as informants. Data analysis techniques used are data collection, data reduction, data presentation and drawing conclusions.

### III. FINDINGS AND DISCUSSION

This research was conducted in five private vocational schools in East Jakarta Administrative City. Information on how to organize learning activities focused on teaching modules belonging to 5 teachers, which will be studied, will then be analyzed and compared between teaching modules belonging to one teacher and other teachers. The same data shows valid data. Information related to the implementation of the independent curriculum in mathematics learning is focused on when the learning process takes place in the classroom. The information was obtained through observation and interviews with teacher informants using handycam tools. Data on the implementation of the independent curriculum in mathematics learning from the first teacher will be used as a temporary conclusion. This conclusion will later be matched with data on the implementation of the independent curriculum on mathematics learning belonging to the second teacher to the sixth teacher. The results of the verification of the data are valid data in the form of a collection of data on the implementation of an independent curriculum in mathematics learning. Information about the obstacles experienced by teachers when implementing an independent curriculum in mathematics learning is in the form of interviews. From the interviews conducted with these 5 teachers, the transcription process and field notes were then carried out for analysis. Data from the constraints of implementing an independent curriculum from the first teacher become temporary conclusions that will be matched with data from interviews from the second teacher to the fifth teacher.

Planning for independent curriculum learning in mathematics learning begins with preparing the Education Operational Unit Curriculum (KSOP) document, looking at the Education calendar to make details of the effective week, annual program (prota) and semester program (promes). The way the teacher prepares the mathematics teaching module begins with the teacher understanding, analyzing and formulating Learning Outcomes (CP), making learning objectives (TP) then the teacher formulating the Learning Objectives Flow (ATP) and making Student Worksheets (LKPD), then the teacher plans a lesson that there are activities to strengthen the profile of Pancasila students in learning. Learning outcomes refer to learning outcomes that have been issued by the government, namely the latest CP number 033/H/KR/2022. This learning achievement becomes the teacher's guide for making appropriate learning methods. For making LKPD adjusted to the ability of each student. The implementation of the independent curriculum in mathematics learning is carried out by the teacher according to the teaching module that has been made. Teaching and learning activities begin with a joint prayer between teachers and students so that teaching and learning activities run smoothly, then check student attendance and condition students in class so that they are more mentally prepared to learn. This is in accordance with the statement of Suharsimi Arikunto (1988: 67) that classroom management is an effort carried out by the person in charge of teaching and learning activities or assisting with the aim of achieving optimal conditions so that learning activities can be carried

out as expected. Furthermore, at the beginning of learning the teacher always conveys the learning achievements that become the direction in learning.

This is in line with Butcher and Highton (2006) who say that learning outcomes, together with assessment criteria can determine the requirements for granting credit. Mathematics learning is carried out student-centered, the teacher becomes a facilitator to make students active in learning mathematics. In teaching and learning interactions, teachers also apply several strategies, methods and learning techniques. This is in line with Gerlach and Ely in Hamzah B. Uno (2008: 2) that learning techniques are paths, tools, or media used by teachers to direct students' activities towards the desired goals. In addition to using learning strategies and methods, teachers also use learning media to support mathematics learning activities. Learning media can increase student absorption and can also increase student learning motivation because learning media can help facilitate the delivery of material. This is in accordance with what Ayuningtyas (2011) said that the purpose of using learning media is to streamline and streamline the learning process. In this case, it means that learning methods, strategies and media play an important role in realizing learning outcomes. In the closing activity of learning, the teacher guides students to conclude, summarizes the learning that has been done, and provides learning reflections in the form of a short oral test to students. The closing activity is carried out by the teacher to focus students' attention at the end of the lesson and also to measure the level of students' understanding of the material that has been studied. This is in line with Mulyasa and Hasibuan in Suwarna et al (2006: 67) that the purpose of teaching basic skills to close the lesson includes knowing the level of success of students in studying learning materials, in addition to knowing the level of success of teachers in teaching students.

Obstacles experienced by teachers related to the implementation of an independent curriculum in mathematics learning include: difficulty in transitioning online to offline learning, basic mathematics material from junior high school is very minimal, students tend to be passive because of student perceptions that mathematics is a difficult subject so students are less interested. The independent curriculum is implemented after the pandemic period, which means that during the pandemic, students are accustomed to learning with an online system, switching to an offline learning system. Here students are required to adapt to changes in the learning system which also affects the absorption of students in understanding the material. This is in accordance with the results of research by Elisa Haryani (2021) that things that affect the absorption of learning include the ability of teachers to master the material, teaching methods, learning climate and learning system.

#### IV. CONCLUSION

Based on the research how to organize independent curriculum implementation activities in mathematics learning is carried out by the following steps:

1. Preparing the Education Operational Unit Curriculum (KSOP) document, education calendar, annual program, semester program to determine the effective week, preparing learning outcomes (CP), objectives learning (TP), learning objectives flow (ATP), student worksheets (LKPD) and appropriate learning methods, compiling teaching modules and their assessments and preparing Pancasila student profile projects.
2. The process of implementing an independent curriculum in mathematics learning carried out by the teacher is in accordance with the lesson plan. Teachers use active learning strategies and learning models to make students active in learning activities and teachers only as facilitators. In learning the teacher also carries out several activities to strengthen the profile of Pancasila students to students in order to achieve learning objectives.
3. The obstacles experienced by teachers in implementing an independent curriculum in mathematics learning include: students still have difficulty adapting to offline learning, students' basic knowledge of mathematics is low and students tend to be passive even though they have been given a stimulus by the teacher.

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