THE IMPLEMENTATION

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The Implementation Of Inovative Learning Models And Based Hots Scientific Aproach On Lesson Plan Of Indonesian Language At Schools

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Abstract . It is disruption situation at school recently. Disruption is the real challenges in the era of 4.0 industrial revolution. It is a difficult situation for students since it is necessary to give them new insights in the framework of scientific approach such as thinking Critically, Creativity, Collaboration (team work ability), and the ability of Communication (4C). Those are considered to be fruitful to overcome problems in their future. Therefore, teachers should be able to apply innovative learning models hopefully.

1. Introduction

Making students got easy to master the subjects is the goal of teaching. To achieve the teacher should have capability in using various approaches, strategies, methods, techniques, and appropriate and relevant learning models. It is due to the teacher's tasks are (1) providing learning experiences revealing happiness and satisfaction to make students keep studying, (2) helping students in finding and analyzing the information needed to make them good decisions (Mudjiman, 2007: 13-14). The statement is in accordance with the new concept of learning. Teaching does not mean transferring knowledge to students, but helping students to develop their knowledge because the teacher functions as a manager and chief of learning. In line with the statement, Brown (in Suharto, 2013: 17) states teaching as follows.

> *"Teaching defined as showing or helping someone to learn how to do something, giving instructions, guiding in the study of something, providing with knowledge, and causing to know or understand".*

To help students, teacher uses tactics (tricks and reasoning) and conducive strategy; (1) giving the opportunity for students to get acquainted with the teaching material (e.g. literature), (2) giving the opportunity for students to see variety of exercises on teaching material. In line with this, Brumfit (in Suharto, 2013: 17) suggests to give the students sufficient time included in extra-curricular/homeworks.

So, teaching is when a teacher must think, solve problems, and make decisions so that students have much time to think and develop their cognitive abilities (Iskandarwasid and Sunendar, 2008: 3).

This statement is not too much due to the precise choice of learning strategy by a teacher influences either the students' mode of creativity and the way of thinking that impacts to learning outcomes. However, it is not suggested to pick up models randomly. The teacher is suggested to use a model appropriately as his teaching methods and philosophy (Munandar, 2009: 162). Mastering models varieties is a must for it is

important to decide which part of the models is useful for certain learning circumstances. To be able to choose the good model, Riyanto (2010: 135-136) suggests as follows: (1) conformity with the instructional objectives to be achieved; (2) conformity with subject material consisting of aspects of knowledge, skills, attitudes, and values; (3) the learning strategy contains a set of learning activities that might include the use of several teaching methods that are relevant to the objectives and learning material; (4) conformity with the professional abilities of the teacher concerned especially in the context of implementing in class; (5) the amount of time available is proportional to the material that must be delivered; (6) availability of supporting elements, especially relevant instructional media and adequate equipment; (7) environmental atmosphere in the classroom and educational institutions as a whole; (8) types of activities that match the needs and interests of students because they are closely related to the level of motivation to learn to achieve instructional goals.

Dorin, Demmin, and Gabel (in Mergel, 1998: 2) generally state the meaning of model in learning "*a model is a mental picture that helps us understand something we cannot see or experience directly*". It means a model is a mental image helping a teacher to make students understand something as if it were real. In spite of that meaning of a model, there are still other definitions based on the field of science or knowledge where they belong. The following are of it: Dilworth (in Suharto, 2015: 82) states as follows,

> *"A model is an abstract representation of some real world process, system, subsystem. Model are used in all aspect of life. Model are useful in depicting alternatives and in analyzing their performance"*

There is also Chauhan (1979: 20) formulates the learning model below,

> *"Model of teaching can be defined as an instructional design which describes the process of specifying and producing particular environmental situations which cause the students to interact in such a way that a specific change occurs in their behavior"*

While Suryaman (2004: 66) says a learning model as a conceptual framework describing a systematic procedures in organizing learning experiences to achieve certain learning goals and serves as a guide for learning designers and instructors in planning and implementing learning activities. In sum, it can be concluded that the learning model can be interpreted as a plan or pattern used in compiling the curriculum, arranging the material and students, and giving instructions to the teacher in setting teaching and managing other components.

Regarding to this teaching settings, Joyce, Weil, & Calhoun (in Suharto, 2013: 18) explain that all learning models contain the following elements: (1) model of orientation, it means the focus or frame of reference concerns on teaching objectives and environment aspects, (2) the sequence of activities (*syntax*), it means the stages of model action; (3) social systems, it means norms (attitudes, skills, understanding) related to the relationship between teacher and students, (4) principle of reaction; (5) supporting system, that is supporting instruments such as text, OHP, and (6) instructional and nurturant effects.

The characteristics of a learning model are provided below to get well understanding about it:

a. It has systematic procedures to modify students' behavior based on certain assumptions;

b. Learning outcomes are set in observable performance;
c. The environment set includes supporting factors such as syllabus/lesson plan, teaching media, etc;
d. The criteria of success are proven in students' performance;
e. The environmental interaction is how students interact and react upon it (Abdul Azis Wahab, 2008: 54-55).

The importance of a learning model is in line with its function as stated by Chauhan (1979: 201) (1) as a guideline to what teacher must do; (2) as a curriculum development instrument; (3) as a decision of teaching materials, (4) as a means of improving teaching. Thus, the learning model is a blueprint for teaching, as a real procedure.

There are four learning models in scientific approach implementing 2013 Curriculum (K13) recommended by the Ministry of National Education, namely *Problem Based Learning (PBL), Project Learning, Inquiry,* and *Discovery*.

Applying scientific approach is doing a learning process designed to develop students' construction concepts, laws or principles through the stages of observing (to identify and find problems); formulating problems; submitting or formulating hypotheses; collecting data by various techniques; analyzing data; drawing conclusions; and communicating concepts, laws or principles founded (Daryanto, 2014: 51). The most important thing during learning is skill of scientific process.

By this scientific approach, the students are expected to be **active, able to think scientifically, and creative.** The students are directed to discover facts, build concepts, and recognize new values needed for their lives by the process of searching. The scientific approach is convinced to be a golden strategy for building and developing students' attitudes, skills, and knowledge.

The scientific approach is intended to provide better understanding in recognizing and understanding materials that information do not depend on the teacher but it comes from anywhere anytime. Therefore the created learning condition by teacher is expected to encourage students in finding various sources by their own observation, not by being told (Kemendikbud, 2013: 1).

The idea is in line with the implementation of a constructivism approach, which is a new paradigm, removing the behaviorism approach, the old one. Constructivism paradigm is learning through the process of internalizing knowledge, reshaping knowledge or new-forming knowledge (Mudjiman, 2007: 25). Knowledge based on constructivism is developed little by little which the results are expanded through a limited (narrow) context and not in sudden. The basic assumption of constructivism is that understanding knowledge will be greater if there exists new situations, if there exams through the acquisition of new inputs. The former knowledge will pass the assimilation or accommodation dynamically to adjust and improve new inputs. Therefore, one's knowledge does not happen instantly, but through a continuous process of development (Panen, Mustafa, & Sekarwinahyu., 2005: 15-16; Suparno, 1997: 11).

In relevance with those meanings, the following is the Charcateristics of scientific learning formulations: student-centered; involving skills of scientific process in constructing concepts, laws or principles; involving cognitive processes that is potential in stimulating intellectual development, especially the high-level thinking skills; developing students' characters. The scientific based learning approach is more effective than traditional learning. The results of the study prove that in traditional learning, information retention from teacher is 10 percent after 15 minutes and the result of acquisition of contextual understanding is 25 percent. In scientific approach based learning, information retention from teacher is more than 90 percent after two days and the result of acquisition of contextual understanding is 50-70 percent (Daryanto, 2014: 55).

Thus, the steps of the scientific approach can be formulated as follows: (1) Observing; (2) Questioning, (3) Gathering Information; (4) Associating / Reasoning / Processing Information, (5) Communicating.

2. Research Methods

This research was conducted using a qualitative approach with descriptive methods. The study was conducted at the Senior High Schools in Madiun in the academic year 2018/2019 through a grant of lecturers go to schools program. The data collection technique uses documentation techniques, checking the validity of the data uses source triangulation techniques, and data analysis techniques uses content analysis.

3. Results and Discussion

The implementation of innovative models and scientific-based HOTs approach is resulted as follows:

3.1. Application of Learning Models

Learning models completed with their syntax have been applied quite well, in sequence in line with the theoretical concept; PBL learning models, for instance, has been understood and applied in the correct syntax sequence; (1) Stimulation or giving stimulation, (2) Problem statement (question/identification problem); (3) Data collection; (4) Data processing; (5) Verification; (6) Generalization (drawing conclusions) (RPP of Exposition Text, 2018-19)

3.2. The Implementation of Scientific Approach.

The scientific approach and its universal steps have been reflected in the implementation of learning models as the table of alignment steps below.

Table 1: Alignment of Steps between Scientific Approaches and Learning Models

Scientific Approach	PBL Learning Model (sample)
Observing	stimulation / giving stimulation
Asking	Problem statement (question/identification problem)
Collecting the information	Data collection
associating/reasoning/processing information	Data processing and Verification
Communicating	Generalization and communication

(RPP, Text of Exposition, X grades, 2018/2019)

3.3. Description of Higher Order Thinking (HOTs)

It was found that the method of describing HOTs was still incorrect. The four features of HOTs should have been written in full, but only one of them was written and written as the subtitles of the activity, for example, it is stated only thinking critically. The description of HOTs that is less precised can be seen in the example below:

Table 2: Example of HOTs description in lesson plan

Problem statement (question/ identification problem)	**CRITICAL THINKING** The teacher provides opportunities for students to identify questions as many as possible related to the pictures presented and will be answered in learning activities, for example: → Asking questions about the material: *Pengertian teks eksposisi* (the meaning of expositional text) The thing that is not understood from what is observed or questioned in order to get additional information about what is observed (starting from factual questions to hypothetical questions) to develop creativity, curiosity, the ability to form questions and to build critical thoughts so that they can think smart and able to study consistently.	

(RPP, Text of Exposition, X grades, 2018/2019)

The findings above can be discussed as follows.

1) The teacher understands and has been able to apply learning models and also understood the principles of applying the scientific approach;
2) The teacher mostly has not fully understood the principle of using HOTs at each stages of learning. All stages of learning should fulfill 4C (thinking Critically, Creativity, Collaboration (team work ability), and the ability of Communication), but in fact, in some parts of each learning phase applied only one element of 4C. The description should be done in balance with the complete sentences below.

Table 3**:** Example of correct HOTs description in lesson plan

Phase	**Main activities**	**Duration of Time**
Problem statement (question/ identification problem)	Teacher provide opportunities for students to identify **through creative thinking critically**, collaboration, and communication (4c). as many questions as possible relating to the images presented and will be answered through learning activities. An example of the question: what is the meaning of exposition text; What are the elements of the exposition text (ideas and facts); how is the pattern of exposition text development; what is the content of the exposition text based on the main idea; what kind of paragraph is in exposition text; how is the structure and rules of exposition text; how is to compile the exposition text; how is to edit exposition text?	

4. Closing

In conclusion, the teacher does not fully understand about HOTs. So, it is very important to propose a follow-up program to the City Education Office to increase teacher's understanding about HOTs. It can

be done through workshops. Workshop is suitable for the teacher because, they still need more knowledge about the new paradigm of learning, that is the demand of learning must be based on HOTs (critical thinking, creative, collaborative, and communicative) in this industrial revolution 4.0 era.

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