

# Implementation of School Education Management in the Digital Age of the Industrial Revolution 4.0

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## ABSTRACT

The implementation of school management is an important aspect for improving the quality of education. This research aims at to find out and describe the implementation of school-based management in facing education in the industrial revolution 4.0 at SMA Negeri 1 Sekayu and the obstacles faced. Research data collection techniques: (1) observation, (2) interviews, (3) documentation. The data analysis technique was carried out in three stages: (1) data reduction; (2) data presentation; (3) data verification / conclusion drawing. The results of this study indicate: (1) in review of curriculum management, the implementation of the learning delivered is in accordance with the applicable curriculum. In terms of infrastructure management, it has attempted to complement existing needs. Judging from student management, learning activities are good. In terms of teacher management it is good; (2) The obstacle faced in implementing school-based management in the face of education in the era of the industrial revolution 4.0 at SMA Negeri 1 Sekayu is the lack of school funds to buy some information. In terms of teacher management, the problem faced is that there are still teachers who are not present at the meeting activities that are being held. In addition, there are still some teachers who do not have educator certificates.

**Keywords:** School Based Management, Industrial Revolution Era 4.0

## 1. INTRODUCTION

Currently, this era has entered an industrial revolution era marked by increased connectivity, interaction and development of digital, artificial intelligence and virtual systems. With the increasingly convergent boundaries between humans, machines and other resources, information and communication technology will certainly have an impact on various sectors of life. One of them is having an impact on the education system in Indonesia. To face the era of the industrial revolution 4.0, education is needed that can form a creative, innovative, and competitive generation. One of the ways to achieve this is by optimizing the use of technology as an educational aid which is expected to be able to produce output that can keep up with or change the times for the better.

The implementation of learning system at Public High School 1 Sekayu has been supported by teachers who are involved in teaching and good infrastructure but have not been able to manage learning properly, one of which is that there are still teachers who do not have an educator certificate and student achievement in achieving passing scores has not been able to compete with grades. from other high schools in Sekayu.

Educational management in schools must keep up with the times. This is necessary because it is to prepare tough humans in the future who are able to adapt to the digital era

## 2. METHODS

### 2.1. Place and time of research

This research was conducted at Public High School 1 Sekayu. The research period have been conducted for 3 (three) months, since in September 2020 until November 2020

### 2.2. Research design

The research background used in this research is descriptive qualitative research method. The research method is the method used by researchers in collecting research data [1]. This study uses a qualitative method. A qualitative approach is a process of research and understanding based on methodology that investigates social phenomena and human problems. In this approach, the researcher creates a complex picture, examines words, reports in detail from the views of the respondent, and conducts studies on natural situations.

### 2.3. Data collection technique

Data collection techniques in this research are: (1) interview or interview; (2) documentation; (3)

observation. In conducting this interview, the researcher asked the respondent questions, namely the principal, the vice principal in the curriculum field, the vice principal in the field of infrastructure, the deputy principal in the field of student affairs, 3 teachers namely 10<sup>th</sup> grade teachers, 11<sup>th</sup> grade teachers, 12<sup>th</sup> grade teachers. The documentation used for data collection in this study is in the form of interview sheets and interview results, research permits, school profiles and other supporting documents. Observations and records are made of the symptoms that appear on the object at the place where the event occurs or is taking place.

#### **2.4. Data analysis technique**

The process of organizing and sorting data into patterns, groups, and basic definition units so that it can be found is known as data analysis. [2]. Qualitative data analysis is an analysis that describes the overall results of the research.

#### **2.5. Checking or checking the validity of the data**

There are four types of data validity criteria, namely: (1) trust (credibility); (2) transferability (transferability); (3) dependability (dependability); (4) confirmability [3]. The data that has been obtained must be tested for validity in order to get good data analysis

### **3. RESULTS AND DISCUSSION**

The results of this study were sourced from the results of interviews with the principal, the results of interviews with representatives of the curriculum field, the results of interviews with representatives of the infrastructure sector, the results of interviews with representatives of the student field, the results of interviews with 3 (three) teachers at Public High School 1 Sekayu, the results of stakeholder interviews (teacher, student, people in community).

#### **3.1. The Impact of the Industrial Revolution 4.0 on Education in Indonesia**

Information and technology have had a massive impact on school activities. New information and knowledge is spread easily and accessible to anyone who needs it. Education is experiencing tremendous disruption. The role of the teacher who has been the sole provider of knowledge has shifted somewhat away from him. In the future, the role and presence of teachers in classrooms will be increasingly challenging and require very high creativity [4]

The era of the industrial revolution 4.0 is a tough challenge for Indonesian teachers. Education and learning that are loaded with knowledge, overriding the

content of attitudes and skills as currently implemented, will produce students who are not able to compete with machines. The dominance of knowledge in education and learning must be changed so that later Indonesian young people are able to outperform machine intelligence while being able to be wise in using machines for benefit [5]. Schools are affected by the industrial era 4.0. This is evidenced by the delay in educational administration matters. Therefore, digitalized management is needed so that academic services can be accelerated. So that the entire academic community can feel the speed of service, and can create new programs that improve the welfare of all community.

Currently system digitization has been implemented such as integrated attendance in the cloud, student grade input system, school facility loan application services

#### **3.2. Implementation of Educational Management in actualizing School Vision**

The implementation of School-Based Management to actualize the Vision of Public High School 1 Sekayu in facing the Industrial Revolution Era 4.0 is: "Mastering Science and Technology Based on Faith and Taqwa to be Competitive" with the vision indicators as follows:

- 1) Discipline in teaching and learning activities;

Regarding the vision, discipline in teaching and learning activities has been implemented in Public High School 1 Sekayu, where the learning process starts at 06.45 until 16.00 WIB (implementation of Full Day learning)[6].

- 2) Achievements in obtaining national and school exam scores;

Regarding the application of school-based management in the face of the industrial revolution 4.0 era, Public High School 1 Sekayu has made various efforts to improve student achievement.

- 3) To be at the forefront of competition to enter public universities;

In connection with the application of school-based management in the face of the era of the industrial revolution 4.0, the achievements of Public High School 1 Sekayu students who are able to compete with other high schools in Musi Banyuasin Regency, where one of the Sekayu 1 Public High School students was accepted into Higher Education [7], [8]

4) Outstanding in Non Academic Fields.

In connection with the application of school-based management in the face of the era of industrial revolution 4.0, where the non-academic achievements of Public High School1 Sekayu students were able to win several achievements in various fields, such as the basketball competition for the male high school category in South Sumatra, the band competition for Senior High School Bumi Sriwijaya Fair in South Sumatra.

5) Tested in religious practice.

In connection with the implementation of school-based management in the face of education in the era of the industrial revolution 4.0, Public High School 1 Sekayu applies religious experiences to students in everyday life. This is done every Friday which is called "Religious Friday".

### **3.3. Implementation of Educational Management in Realizing School Mission**

The implementation of school-based management embodies the mission of Public High School1 Sekayu in facing the era of the industrial revolution 4.0, by formulating the mission of Public High School 1 Sekayu as follows.

- 1) Organizing education that is Islamic and environmentally friendly.
- 2) Improve the quality of education that implements a system of religious and cultural values with advances in science and technology.
- 3) Increase the commitment of all education personnel to the main and its functions.
- 4) Creating a conducive learning environment in an effort to improve the quality of education.
- 5) Creating graduates with environmental characteristics and insight and care for the environment.
- 6) Instilling the basics of faith and devotion based on Islamic spirituality.
- 7) Establishing a harmonious relationship between the school and the guardians of students, the community, related agencies and institutions in order to achieve an optimal school vision.
- 8) Organizing various extracurricular activities that can develop students' potential in the environmental field.
- 9) Organizing 3R (Reuse, Redue, Recycle) competitions between classes and between schools.
- 10) Able to develop an attitude of helping both

within the school environment and outside the school environment.

### **3.4. Implementation of Educational Management in terms of Curriculum Management**

Based on the results of research observations that the implementation of school-based management in facing education in the era of the industrial revolution 4.0 at Public High School1 Sekayu, in determining learning is in accordance with the direction of the principal, namely referring to the curriculum and there are no obstacles encountered. The curriculum that has been designed every year has been updated in its preparation and there are no obstacles encountered [9].

In preparing the curriculum, it has been planned in advance and the preparation made is referring to the curriculum from the previous year, both evaluating the learning results conveyed by the teacher and adding new findings so that the curriculum to be implemented refers to the learning needs of students and there are no obstacles faced. In developing the curriculum at Public High School 1 Sekayu it adapts to the needs of students, where all activities in the learning process are emphasized on problem solving and there are no obstacles encountered [10]. Public High School 1 Sekayu in curriculum preparation involves all related components, namely teachers as implementers who deliver learning to students. The constraints faced were some teachers who did not attend the meeting. The preparation of the curriculum has been adjusted to the needs of students, for example, as suggested by the principal, such as including local content, namely Japanese, considering that every graduate from Public High School 1 Sekayu is accepted in universities in Japan. There are no obstacles faced because at Public High School 1 Sekayu because it is supported by disciplines of educational staff who are deemed appropriate to the task being carried out.

### **3.5. Implementation of Educational Management in terms of Infrastructure Management**

Based on the results of research observations, the implementation of school-based management in facing education in the era of the industrial revolution 4.0 at Public High School1 Sekayu, to meet the infrastructure needs at Public High School 1 Sekayu by using the School Operational Assistance Fund (BOS), "which was given by the head schools but the constraints are that the funds provided are not sufficient to meet the needs of Public High School 1 Sekayu. Apart from that, the management of infrastructure to meet the learning needs of students buys learning media support tools, namely Focus, buys package books according to the number of

students and teacher's handbooks and adds collection books in the library. The implementation of school-based management is reviewed from the management of infrastructure, Public High School 1 Sekayu has recorded the infrastructure used by educators and has carried out an inventory of items in the school, and has grouped the inventory items into an inventory book and there are no obstacles encountered and has provided a code numbering for items at school with the aim of facilitating the grouping of where the goods come from and the source of the funds and there are no obstacles faced. The implementation of school-based management in terms of infrastructure management, input infrastructure data into the main book in order to find out how many facilities are there and there are no obstacles encountered. as well as grouping the inventory items into inventory books and there are no obstacles faced and have provided a code numbering for the items in the school with the aim of making it easier to group these items from where and the source of the funds and there are no obstacles encountered. The implementation of school-based management in terms of infrastructure management, input infrastructure data into the main book in order to find out how many facilities are there and there are no obstacles encountered. as well as grouping the inventory items into inventory books and there are no obstacles faced and have provided a code numbering for the items in the school with the aim of making it easier to group these items from where and the source of the funds and there are no obstacles encountered. The implementation of school-based management in terms of infrastructure management, input infrastructure data into the main book in order to find out how many facilities are there and there are no obstacles encountered.

### **3.6. Implementation of Educational Management in terms of Teacher Management**

Implementation of school-based management in facing education in the era of the industrial revolution 4.0 at Public High School 1 Sekayu through teacher management, where teachers carry out learning according to the curriculum and there are no obstacles faced. The curriculum prepared by the teacher is carried out every new academic year and adjusted to the applicable curriculum. The learning delivered by the teacher is in accordance with the needs of students, for example local content, for example, as suggested by the principal, such as including local content, namely Japanese, considering that every graduate from Public High School 1 Sekayu is accepted in universities in Japan. There are no obstacles faced because at Public High School 1 Sekayu because it is supported by disciplines of educational personnel who are considered in accordance with the task being carried out

## **4. CONCLUSION**

Based on the results of research on the implementation of school-based management in facing education in the era of the industrial revolution 4.0 at Public High School 1 Sekayu in terms of curriculum management, infrastructure management, student management, and teacher management, it is good. This is known as follows. The implementation of school-based management in facing education in the era of the industrial revolution 4.0 at Public High School 1 Sekayu in terms of curriculum management, the implementation of learning delivered is in accordance with the applicable curriculum. In terms of infrastructure management, Public High School 1 has made efforts to complement the existing needs both teacher handbooks and learning media. In terms of student management, where learning activities are good. In terms of teacher management it is good. The obstacles faced in the implementation of school-based management in facing education in the era of the industrial revolution 4.0 at Public High School 1 Sekayu in terms of curriculum management there are no obstacles. Judging from the management of infrastructure, the problem faced is the lack of school funds to buy some information, because they are considered less than the existing needs. In terms of student management there are no obstacles. In terms of teacher management, the problem faced is that there are still teachers who are not present at the meeting activities that are being held. In addition, there are still some teachers who do not have educator certificates. This solution, the principal makes an effort for the teacher to take part in activities such as training in order to broaden the teacher's insight in teaching,

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