
DIGITAL SCHOOL IMPLEMENTATION AT SMA NEGERI 1 CITY OF SUKABUMI**Rachmat Mulyana¹, Tantan Hadian², Ida Tejawiani³, Asep Ikhwan Awaluddin⁴**SMAN 1 Sukabumi, Indonesia^{1,2}Universitas Islam Nusantara, Indonesia^{3,4}m80rahmat@gmail.com¹, tantanchemist73@gmail.com²,idatejawiani123@gmail.com³, ritasulastini@uninus.ac.id⁴

ABSTRACT

Digital schools are essential for new experiences in the classroom and the education system as a whole for teachers and students, with the flood of new technologies, of course, demanding changes to the way teachers teach and learn students. This research aims to describe and analyze the implementation of digital school at SMAN 1 Sukabumi. This research uses a qualitative approach with a descriptive method. The respondents of this study were the principal, four deputy principals, teachers and 293 students. Data collection was carried out using documentation studies, observations, and interviews. They are distributing questionnaires to students to strengthen research data. The data obtained, collected, processed, and conclusions are drawn. The results of this study are that in school planning, this program has been planned to start in 2013 but has yet to have a grand design digital school program, both short-term and long-term. The organization of the program still needs to be directed. Meanwhile, in its implementation, SMA Negeri 1 Sukabumi has gradually implemented the digitization program. However, it still needs to be completed and comprehensive. The principal has carried out an internal evaluation. However, it still needs to evaluate the digital school program. Meanwhile, external supervision has yet to be carried out either by school committees or school supervisors. The school has planned a digital school program, with the formulation of the school's vision, mission and goals that lead to the development of a digital-based school. However, there must be a clear grand design for both short-term and long-term programs.

Keyword: implementation, digital school, sman 1 sukabumi.

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**INTRODUCTION**

Management standards are the minimum criteria regarding the planning, implementation and supervision of educational activities carried out by the Education Unit so that the implementation of Education Education is efficient and effective (Damanik, 2015). Planning, implementing and supervising education activities apply school-based management as indicated by independence, partnership, participation, openness, and accountability (PP No 57 of 2021) (Suhardi & Fahmi, 2021).

Digital schools provide new experiences in the classroom and the education system for teachers and students, with a flood of new technology, of course, demanding changes in the way teachers teach and learn students (Hamdah, 2018). Large amounts of money are needed for gadgets and e-books, interactive whiteboards and online learning programs and other classroom technologies. Collaboration with local governments, communities and companies that want to support education development is needed (Abi Hamid et al., 2020).

Based on data quoted from Hootsuite (We are Social) Indonesian Digital Report 2022, the trend of internet and social media users in Indonesia in 2022 has increased in the last 5 years (Imran,

2022). As many as 73.7% of Indonesia's population use the internet or as many as 204.7 million people (up 1% from 2021), and active social media users as many as 191.4 million (up 12.6% from 2021) (Pratiwi, 2022). Meanwhile, the average daily use of the internet is 8 hours 36 minutes, and 3 hours 17 minutes is used for social media, or more than 37% of internet use is used for social media.

The use of the internet in learning has increased rapidly since the covid 19 pandemic, which is in line with the implementation of distance learning (PJJ) at the school and tertiary levels (Fahmi, 2020). Apart from being a demand of the times, this is also forced by a situation and government policy that requires all learning to be online (Rahmi, 2020). As reported by *tekno.compas.com* (May 2022), around 58.5% of the internet use for learning purposes is for online videos, learning videos, and video tutorials. Seeing such trends, digitizing schools is a must, especially in facing new challenges and civilizations, namely the 21st century, the 4.0 era and towards 5.0 and learning, referred to as new learning, has the characteristics of student-centered, multimedia, collaborative work, information exchange, critical thinking and informed decision-making (Putro, 2013).

One of the digital school programs launched by the Ministry of Education and Culture is the existence of an educational platform called the independent platform (Ritonga et al., 2022). An educational platform has three main functions: helping teachers to teach, learn, and work (Susilowati, 2022). The independent teaching platform is expected to assist and guide educational units in implementing the Independent Curriculum.

The Independent Curriculum approach is different from the previous curriculum, namely with stages. However, the approach is simpler this time by learning directly on the Merdeka Teaching Platform. With a more IT-based approach, this platform aims to make it easier for teachers to teach according to students' abilities, provide training to improve competence and work to inspire their colleagues.

SMA Negeri 1 Sukabumi launched a digital school program in 2013; this is stated in the formulation of the school's vision and mission for digital school since 2013. However, until now, the achievements of the digital school program have yet to be realized properly. Therefore, this research reveals the developments and constraints in the implementation of digital schools in SMA Negeri 1 Kota Sukabumi both in terms of program planning, implementation, and evaluation.

METHODS

This research method is qualitative descriptive research, namely an approach to explore and understand the meaning of individuals or groups related to social problems that can be used to interpret, explore, or gain a deeper understanding of certain aspects of beliefs, attitudes, or human behavior (Wijaya, 2020). Qualitative methods emphasize more on observing phenomena and examining the substance of the meaning of these phenomena.

This research was conducted at SMA Negeri 1 Sukabumi City in November 2022. This study used various data collection techniques, namely in-depth interviews, observation, and documentation studies. Interviews were conducted with school principals, vice principals of curriculum, deputy heads of public relations, vice heads of facilities, vice heads of student affairs, and IT coordinators. Meanwhile, the documentation study analyzes school documents in the form of school vision-mission-goals, school programs, and school operational curricula. Observations were made directly in the field by observing real conditions related to digital school at SMA Negeri

1 Sukabumi. While the questionnaire was distributed to students using the Google form, and the answers of 293 students from grades 10, 11 and 12 were collected. These collection techniques were used to obtain information that mutually supports and complements research data. The data collected includes field notes, pictures, documents, reports, Google form results and interview data.

The data that has been collected is then analyzed. Data analysis includes grouping data, cleaning data, transforming data, and creating data models to find important information. Data analysis was carried out inductively, from a specific to a general theme. The researcher interpreted the data and made conclusions.

RESULTS AND DISCUSSION

From the research that has been done, the following results were obtained:

Table 1. Research Results

Program Step	Research result
Planning	- The School Has a Vision That Leads to A Digital School - Schools Have Missions and Goals Listing Digital Schools - The School Does Not Have a Grand Design Regarding the Digital School Program - The School Does Not Have a Comprehensive Digital School Program. - Schools Do Not Have SOPs Regarding Implementation of Digital Schools - The School Has Established an IT Coordinator
Implementation	- Schools Use 4 Kinds of LMS Applications in Student Learning - The School Has Complete E-Modules for All Subjects Created by Teachers - Schools Organize Digital-Based Learning Still Partial - The School Develops Several Applications for Student Discipline - Teachers Still Have Inadequate Motivation and Competence in Implementing Digital-Based Learning - Schools Do Not Have Adequate Facilities and Infrastructure for Massive Digital School Implementation - The Attendance System for Teachers and Employees Has Been Digitized - The teacher Activity and Performance Reporting System Has Been Digitized - Schools Have Not Implemented Information Systems That Connect Between Schools, Students and Parents. - The school has 6 ICT teachers, all of whom are P3K ASNs
Evaluation	- The principal conducts internal Evaluation - The role of school supervisors in the supervisory and coaching functions still needs to be improved. - The Role of School Committees in Assisting the Implementation of the Program is Still Inadequate

From a survey of 293 students, almost all students had *gadgets*, namely *around* 99.7%, which they used for learning during 1-3 hours per day. Therefore, the learning facilities that students have are sufficient to take part in learning using *gadgets*, with the hope that school students will provide adequate internet access in each classroom. Then to see students' tendency to respond to IT-based learning, as much as 15.4% of students said they were very happy, 41.3% were happy, 40.3 were quite happy, and 3% said they were not happy. This becomes the carrying capacity that students' motivation in learning using IT-based learning is quite high. Meanwhile, teachers' activeness in using it in learning must be increased, as the survey data stated that as many as 15.4% of teachers always use it, 42.7% often use it, 40.3% rarely use it, and 1.6% never use it in learning.

a. Planning

Based on the results of interviews and documentation studies, digital-based school planning at SMA Negeri 1 Sukabumi City started in 2013 and has become the ideals outlined in the school's vision, mission, and goals. *Including digital school* in the school's vision, mission and goals are a foundation for schools to establish the *digital school* as a priority program. The school's vision and mission should not only be used as wall hangings or just administrative needs but also must be understood by all school stakeholders so that every program made must still refer to the vision and mission that has been mutually agreed upon.

This change in vision and mission since 2013 has been carried out twice, but the school community continues to aspire to make their school a digital-based school. To support the school's vision-mission goals in terms of digital school programs, an IT coordinator was formed. However, the IT coordinator has limitations in moving a school the size of SMAN 1 Sukabumi. The IT coordinator is only assisted initially by one staff member who is an ICT teacher. In the 2022/2023 school year, SMA 1 Sukabumi received the assistance of 6 IT teaching staff with P3K status. This is a human resource force expected to realize this digital school program.

From the results of the researcher's observations, the school still needs to have a *grand design* about what the digital school program at SMAN 1 Sukabumi will look like, both from a short-term and long-term program perspective. In the short-term program, the digital school program is limited to partial services for each program sector, including administration, curriculum, student affairs, public relations, facilities, and finance. So that in preparing the work plan and budgeting, it does not specifically budget for building this digital school. Another thing, according to the researchers' observations, the IT team, which has just received additional personnel, still needs to have Standard Operating Procedures (POS) and a clear division of tasks.

b. Implementation

Along with the needs and challenges of the times, preparations for a digital school have been carried out by SMAN 1 Sukabumi. Even though program planning is still partial, this has become a strength for schools so that the school community understands the nature of digital-based schools little by little, especially after the Covid-19 pandemic forced teachers and students to build leaps in mastering technology for learning.

New ideas emerged from each field to digitize each program as if showing the great importance of the need for *grand design digital school*, which must be mutually agreed upon at the beginning of the new school year. Step by step, according to the school's ability, it is hoped that this program can be implemented properly. According to the observations of both

researchers, from observations and interviews, the programs that have been implemented related to digital schools are as follows;

1. *Learning management system (LMS)*

Four LMS have been and are still being used in school learning, consisting of *quipperschool* premium, *Google Class Room* (GCR), LMS version of SMA 1 Sukabumi and LMS from the independent learning educational platform. Quipperschool as an online education service provider has collaborated with SMAN 1 Sukabumi since 2015, which is now a paid education platform that provides learning content ranging from learning videos, materials, questions, quizzes, and templates for teachers to create their content. Google Class Room (GCR), which is a collaboration between Google and the Ministry of Education and Culture, provides unlimited drive storage service facilities for teachers and students with study accounts. Id. Meanwhile, the IT team at SMAN 1 Sukabumi developed its own LMS intending to unite all the interests of digitizing all components in the school. With so many LMS being introduced and implemented in schools, learning tends to leave the LMS and instead return to traditional learning. Only a few people use the LMS facility, and even then, they use a different LMS.

- Android Based Exam

Long before the Covid-19 pandemic, starting in 2017, SMA 1 Sukabumi had started to pass paper-based exams, both daily tests, UTS, PAS, PAT, and US/USBN. As reported by <https://radarsukabumi.com/education/pelajar-smansa-ujian-wear-android/>, SMA 1 Sukabumi became the first school in the city of Sukabumi to hold an Android-based USBN (Sukabumi, 2018).

- Use of the E-Report Application

Since the 2013 curriculum was rolled out, the change from written report cards to e-report cards has been implemented at SMA 1 Sukabumi, even though there is no e-report card from the Ministry of Education and Culture yet, SMAN 1 Sukabumi has made its own application.

- ASN Attendance System and Daily Activity Reporting.

Before KMOB from West Java province, SMAN 1 Sukabumi had already used *fingerprints* to take attendance. However, after changing employment status, attendance, and daily activity reporting, use the KMOB and TRK applications from West Java Province, where each ASN employee is required to check in with a selfie at 7.30, and be absent from home at 16.00. Meanwhile, for performance accountability, each employee must input activities carried out daily in the TRK application.

- *E-book* creation

Since 2017, SMA 1 Sukabumi has started using e-modules called e-UKBM (Independent Learning Activity Units) because of schools implementing a semester credit system (SKS). The UKBM that has been made has completed six semesters for each subject. According to the results of a survey conducted on 293 students, 85% of teachers at SMAN 1 Sukabumi actively use this e-UKBM in learning.

- Making Youtube Learning Media

When the covid pandemic hit, schools thought hard about providing educational services to their students so they would stay energized and could study anytime and anywhere

(Pitaloka & Nandani, 2021). So almost all teachers have a YouTube account and make their learning videos.

- Wifi access

Wifi access is still inadequate for learning; not all classrooms have adequate wifi and internet access; this is following the results of a survey of 293 students, which said that 52.9% of respondents said there was no wifi network in class or around them.

- Digital Library

Apart from serving the conventional library for students, SMAN 1 Sukabumi also serves it digitally, in collaboration with Gramedia online and the national library.

- Silanggar (Student Violation Application System)

The school's IT team will make a new application, and every student who violates it will be recorded through this application. It can be reported to the homeroom teacher, BK teacher or anyone interested.

- Sipitung (Osis Selection Calculation System)

A new application was made by the school's IT team, using the application to calculate the vote in the osis and MPK elections and the presidential and DPR elections.

- Website

The Swan 1 Sukabumi website as the face of a school in cyberspace has existed since 2010

- Social Media

As is the current trend, the most effective way to convey information to the public, students, teachers, parents and people with interest is more effectively with social media (Pribadi, 2020). All *social* media, such as YouTube, wa, telegram, IG, Facebook, TikTok, etc., have officials for all Sman 1 Sukabumi social media, which are managed by public relations.

- Finance report

Financial reporting from state finances has been done digitally with an application provided by the Ministry of Education and Culture. As explained above, all the programs that have been implemented are separate, not yet a unified whole. Sometimes these programs appear without planning at the beginning of the year but arise because of the needs in the field in both intra-curricular, co-curricular and extra-curricular learning. Funding for this *digital school program* is increasingly more work because, with limited budgetary funds from BOS and BOPD, whose operational and technical guidelines are clear, they will not be able to cover the needs of this *digital school program*. Meanwhile, contributions from the community are no longer permitted. They are not carried out by schools either by the school directly or by the school committee. In addition, programs that only budget for the implementation of their activities, while pre, post, IT personnel and infrastructure needs are not budgeted for.

c. Evaluation and follow-up.

Evaluation of the *digital school program* should be carried out at least once in one semester. However, because the programs are separate, this evaluation is also separate in each program. The Evaluation is also limited to the Evaluation of that program, not the overall target of the *digital school program*. So, the deficiencies continued to recur even in the following year and there needed to be a follow-up.

d. Research problem findings

Judging from the planning, implementation and Evaluation carried out by the school on this *digital school program*, a crucial problem was found why, in more than eight years, the progress was still stagnant. This was revealed because the school still needs to have a clear *grand design* regarding the *digital school concept* to be developed. **Second**, all school stakeholders still need an understanding of the importance of this *digital school*. **Third**, there is no comprehensive team that involves all school stakeholder representatives, not only the IT team but involves supervisors, school committees, school principals, and school management ranks, who can realize the dream of a *digital school* at SMA 1 Sukabumi. **Fourth**, the IT team needs a clear SOP and division of work tasks.

e. Problem Solution

- 1) Created a solid team consisting of the Principal, IT Coordinator, and IT Team, 4 Wakasek, Head of the library and head of the lab, IT-savvy administrative representatives, School Committee and school Supervisor
- 2) SOP and Job Description made. That this program is a school program, and the full responsibility is the headmaster, who mobilizes, motivates the entire school community, and monitors and evaluates the sustainability of the program; supervisors provide direction and consideration, the school committee provides input on ideas and finds solutions in funding, other teams move according to the division of work tasks respectively.
- 3) Make a grand design for the next five years regarding digital school programs.
- 4) Preparation of short- and medium-term programs and possible financing needs may be carried out.

CONCLUSION

From the results of the research that has been carried out, the following conclusions are obtained: 1) The school has planned a digital school program, with the formulation of the vision, mission and goals of the school that leads to the development of digital-based schools. However, there must be a clear grand design for both short-term and long-term programs. 2) Schools run programs for digital-based schools, with various programs attached to programs in each field, including administration, finance, curriculum, student affairs, facilities and public relations. 3) Schools evaluate programs internally, but the school supervisors and committees need to be improved externally. 4) This research has several problem findings to be followed up in developing digital schools. 5) Researchers provide solutions to problems arising from this study's results.

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