

Digital Literacy Management to Increase Students' Reading Interest and Soft Skills: Multisite Study at SMKN 1 Driyorejo and SMKN 1 Cerme Gresik

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ABSTRACT

This study aims to describe and analyze the management of digital literacy programs implemented at SMKN 1 Driyorejo and SMKN 1 Cerme as a strategy to increase students' reading interest and soft skills. This study uses a qualitative approach with a multi-site study design, through observation techniques, in-depth interviews, and documentation. The results of the study show that the digital literacy program in both schools is designed based on contextual needs and has been implemented through various strategies such as project-based learning, the use of digital platforms, and the development of multimedia teaching content. The main difference lies in the orientation approach: SMKN 1 Driyorejo emphasizes active student participation and digital collaboration, while SMKN 1 Cerme is more structured and oriented towards the development of standardized digital learning content. Evaluation is carried out formative and summative by utilizing digital instruments and students' reflections. The cross-case results show that flexibility, collaboration, and the use of technology are key factors in the success of empowerment-based digital literacy programs in vocational schools.

Keywords: *Digital Literacy; Program Management; Reading Interest; Soft Skills; Vocational High School.*

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INTRODUCTION

In the era of the Industrial Revolution 4.0 and rapid digital transformation, digital literacy is a basic competency that must be possessed by every individual, including students in vocational education institutions. Globally, digital literacy is not only understood as the ability to use technological tools, but also includes critical thinking skills, collaborative communication, and media ethics in the digital space. International organizations such as UNESCO and the OECD emphasize that vocational education needs to reorient its curriculum so that students are able to face the challenges of an increasingly digitized world of work. In this context, digital literacy plays an important role in preparing graduates who are adaptive to industry developments, as well as able to innovate and compete in the global job market.

In Indonesia, digital literacy has become part of national strategic policies, as stated in the Education Roadmap 2020–2035 and the "Merdeka Belajar" program. Especially in Vocational High Schools, digital literacy is very important not only to support technical skills, but also to develop soft skills such as independent learning skills, online collaboration, and information management. Low interest in reading and limited access to digital literacy in some vocational schools are challenges that need to be answered through strengthening effective management-based digital literacy programs. Therefore, the integration of digital literacy in vocational education management is a strategic step to produce graduates who are competent, technologically capable, and ready to face the increasingly complex demands of the business and industry (BI).

Indonesia's national education has a strategic role in preparing the young generation who are not only intellectually intelligent but also have strong character. This is as stated in

the Law of the Republic of Indonesia No. 20 of 2003 concerning the National Education System, which emphasizes that national education aims to develop the potential of students to become human beings who have faith, piety, noble character, health, knowledge, capability, creativity, independence, and become democratic and responsible citizens (Ministry of Education and Culture, 2016). To achieve this goal, education is not enough to focus only on the mastery of knowledge (*hard skills*), but also need to pay attention to the development of non-technical skills or *soft skills* which includes communication, cooperation, leadership, creativity, ethics, and problem-solving.

Vocational High School (SMK) as one of the formal educational institutions at the secondary level plays an important role in preparing human resources who are ready to enter the world of work. Vocational schools are expected to be able to produce graduates who are competent, skilled, and adaptive according to industry needs. However, the challenges faced by vocational schools today are quite complex, including the low interest in reading of students, the weak mastery of soft skills, and the lack of optimal use of digital technology in the learning process (BPS East Java Province, 2024; Scott, 2019). This is exacerbated by the fact that the open unemployment rate of vocational school graduates is the highest compared to graduates at other levels, reaching 6.42 percent, thus showing a gap between the competence of graduates and the needs of the job market (BPS East Java Province, 2024).

Conceptually, the process of education or learning is a process of change, namely a change in behavior as a result of interaction with the environment in meeting the needs of life (Mulyono and Wekke, 2018). In the Learning Process, learning at vocational schools is also closely related to the subject of learning, namely students. There are several factors that affect student learning, namely: factors that exist in students and factors that come from outside the students. Factors of interest, motive and attention from within students need to be raised, because these factors are what really determine the success of students' learning. In this case, the role of the teacher will be very helpful to bring up this factor with the help of guidance, direction from the teacher, students are expected to become mature, creative, innovative and independent individuals. In other words, students can step in a better direction in a systematic way.

In facing the era of the industrial revolution 4.0, digital literacy is one of the important skills that students must have. Digital literacy includes not only the ability to operate technological devices, but also the ability to access, evaluate, and use information critically and wisely (Prayogi & Aesthetics, 2020). Digital literacy helps students understand academic information, improve communication skills, expand horizons, and open up opportunities for independent learning that were previously difficult to access.

Skills-based *soft skills* Such as communication, teamwork, leadership, time management, and problem-solving are skills that are in high demand in the world of work and social life (Judge et al., 2017; Yukl et al., 2013). However, the development of *soft skills* in vocational schools so far is still limited and often only appears in extracurricular activities, not integrated in daily teaching and learning activities (Sumar & Razak, 2016). In fact, the development of *soft skills* It should be done systematically, programmatically, and continuously so that students have a more mature readiness to enter the world of work.

The integration of digital literacy in learning is expected to not only increase reading interest, but also strengthen *soft skills* student. With the right program management approach—from planning, organizing, implementing, to evaluation—schools can create a more modern, relevant, and effective learning ecosystem (Mahasneh & Thabet, 2015). The use of digital learning platforms such as Google Classroom, Moodle, or Microsoft Teams, for example, can encourage active student engagement, strengthen teacher-student communication, and facilitate teamwork in task-based projects (*project-based learning*).

This research focuses on an in-depth analysis of the management of digital literacy programs in two vocational schools, namely SMKN 1 Driyorejo and SMKN 1 Cerme, each of which offers various areas of expertise. The objectives of this study are to decrypt and analyze

findings related to digital literacy-based empowerment programs implemented at SMKN 1 Driyorejo; to decrypt and analyze findings on digital literacy-based empowerment organizing practices applied at SMKN 1 Driyorejo; to decrypt and analyze findings regarding the implementation of digital literacy-based empowerment programs at SMKN 1 Driyorejo; and to decrypt and analyze findings on the evaluation of classroom learning outcomes based on digital literacy empowerment at SMKN 1 Driyorejo. It is hoped that the results of this research can provide best *practices* that can be replicated by other schools in an effort to increase students' reading interest and soft skills, as well as a contribution to realizing vocational education that is relevant to the needs of industry and society.

METHOD

This study uses a descriptive qualitative approach because it allows researchers to deeply understand the behavior, views, and experiences of informants regarding the management of digital literacy programs in schools (Riyanto & Oktariyanda, 2023). This approach is relevant for exploring social meanings that can only be understood through direct interaction between researchers and informants and providing a comprehensive picture of the phenomenon being studied. The type of research used is a multi-site study (Moleong, 2017), where the research was conducted in two locations with similar backgrounds, namely SMKN 1 Driyorejo and SMKN 1 Cerme Gresik. The selection of these two schools was based on the same status as a Central Vocational School of Excellence, the same expertise competencies, the same location in Gresik Regency, and the large number of students, thus allowing for a comprehensive and in-depth comparison.

The research subjects consist of principals, teachers, and students involved in the implementation of digital literacy programs. Data was collected through participant observation to observe program activities directly, in-depth interviews to dig up detailed information, and documentation in the form of planning documents and activity reports. Data analysis is carried out using the Miles and Huberman model which includes three main stages: data reduction to select relevant information, presentation of data in the form of a systematic narrative, and conclusion drawing that is continuously verified to ensure the validity of the findings. Furthermore, cross-case analysis was conducted to compare the results of the two study sites, so that patterns and differences underlying the general conclusions were found. The validity of the data is maintained through triangulation of sources and techniques, member checks, and peer debriefing. In addition, transferability, dependability, and confirmability are also guaranteed by the presentation of complete context, systematic recording, and audit trail documentation during the research process.

FINDINGS AND DISCUSSION

This study aims to describe and analyze the implementation of the digital literacy program at SMKN 1 Driyorejo by focusing on four main aspects, namely: (1) digital literacy-based empowerment-based programs, (2) program organization, (3) program implementation, and (4) evaluation of digital literacy-based learning outcomes.

Digital Literacy Empowerment-Based Program at SMKN 1 Driyorejo

The results of the study show that the digital literacy program at SMKN 1 Driyorejo was designed as a response to the low interest in reading and the weak soft skills of students. The school integrates digital literacy into project-based learning and utilizes digital platforms such as Google Classroom, Microsoft Teams, and educational YouTube content. The purpose of this program is to empower students to critically access and evaluate information, improve collaborative communication through digital platforms, and build a digital-based reading culture through weekly literacy challenges.

The findings show that empowerment is not only focused on students, but also teachers through internal training on digital media, literacy curriculum, and the use of technology as

an instructional strategy. This is in line with the principle of quality-based management where human resource capacity development is the foundation of program success.

Organizing Digital Literacy-Based Programs

The organization of the program is carried out systematically and collaboratively, with the principal facilitating the formation of a Digital Literacy Team consisting of cross-subject teachers, librarians, and student representatives. This team is tasked with developing SOPs for the use of digital media in the classroom, integrating digital literacy into the lesson plans and the annual work program, as well as organizing training schedules and monitoring the implementation of the program.

Role division is carried out on a distributive principle, where each team member has specific responsibilities contained in the job description. This organization strengthens the sense of ownership among teachers and students, thus creating a strong synergy in running the program.

Implementation of Digital Literacy Programs

The implementation of the program at SMKN 1 Driyorejo is carried out through structured activities, including learning based on digital media such as interactive modules and learning videos, digital literacy challenges such as creating online article summaries, literacy vlogs, and reflective quizzes through Google Forms, as well as digital collaboration between classes using online forums and group discussions through the Teams platform. This implementation has an impact on increasing learning activity, student involvement, and students' ability to express opinions critically through digital media. Teachers act as facilitators who provide space for students' expression and reflection, not only in the form of formal assignments, but also digital-based creative activities.

Evaluation of Digital Literacy-Based Learning Outcomes

Evaluations are carried out formatively and summatively using various digital instruments, such as project assessment rubrics, digital portfolios, and online quizzes, while also considering cognitive aspects (content comprehension), affective aspects (reading interest and learning motivation), and psychomotor aspects (use of digital media). The findings showed a significant improvement in the frequency with which students access digital learning resources, the quality of project results that reflect critical thinking skills, and active participation in digital discussion forums.

In addition, program evaluations are also carried out through teacher and student feedback, as well as routine reflection by the Literacy Team, serving as the basis for program improvement in the next school year. All of the above findings show that the digital literacy program at SMKN 1 Driyorejo has met the four research objectives set: (1) Program Description – the program is based on contextual needs and aims to improve reading interest and soft skills through a technological approach; (2) Organization – program management is structured, team-based, and collaborative; (3) Implementation – the program is integrated into routine learning activities, utilizes digital media, and emphasizes the active empowerment of students; and (4) Evaluation – it is holistic, oriented towards the development of literacy and soft skills, and adaptive to student needs. These findings support the conceptual framework that digital-based education management is able to answer learning challenges in the industrial era 4.0, as long as it is carried out with a systemic and participatory approach.

Cross-Case Analysis: Comparison of SMKN 1 Driyorejo and SMKN 1 Cerme

This study uses a multi-site study design to see similarities and differences in the implementation of digital literacy program management between two schools that have relatively similar institutional characteristics. This cross-case analysis aims to find a common pattern (*cross-case pattern*) that can be used as a best practice in the development of digital literacy in vocational schools.

Tabel 1 Digital Literacy Program: Focus and Orientation

Aspects	SMKN 1 Driyorejo	SMKN 1 Cerme
Focus Program	Increased interest in reading and soft skills through digital platforms	Strengthening academic and vocational literacy culture through digitization of teaching materials
Key Strategies	Project-based learning, digital collaboration	Integration of e-modules and YouTube content into learning
Empowerment Targets	Students and teachers through hands-on training and practice	Teachers as digital media designers, students as active users

Findings: Both schools have a consistent focus on empowering digital literacy, but SMKN 1 Driyorejo emphasizes more on the dimensions of communication and collaboration skills, while SMKN 1 Cerme focuses more on the use of digital content as the main learning resource that is contextual with the world of work.

Tabel 2. Program Organization

Aspects	SMKN 1 Driyorejo	SMKN 1 Cerme
Organizational Structure	Cross-teacher Digital Literacy Team	Special sub-fields under the Curriculum Vice-Chair
The Role of the Teacher	Content coordinator, student mentor	Digital media developer
Student Engagement	Active as a literacy content creator	Mostly as passive users

Findings: SMKN 1 Driyorejo adopts a more open collaboration-based and participatory approach, while SMKN 1 Cerme is more bureaucratically structured but with higher technological innovations in the production of learning media.

Tabel 3. Program Implementation

Aspects	SMKN 1 Driyorejo	SMKN 1 Cerme
Featured Activities	Literacy vlogs, digital quizzes, online discussion forums	Creation of educational e-modules and YouTube channels
Integration in the RPP	Written and applied in project assessments	Applied selectively to productive maple
Learning Methods	Collaborative and participatory	Independent and individualistic

Findings: Driyorejo emphasizes more on aspects of classroom dynamics and emotional engagement of students, while Cerme excels in the development of standardized and industry-oriented digital teaching content.

Tabel 4. Program Outcome Evaluation

Aspects	SMKN 1 Driyorejo	SMKN 1 Cerme
Evaluation Instruments	Project rubrics, digital reflections, student feedback	Digital task reports, analytics platform
Success Indicators	Reading interests, collaboration skills, creativity	Learning independence, access to digital materials, task response
Monitoring	Weekly Reflections and Quarterly Evaluations	Supervision of the head of the program and centralized supervision

Findings: Evaluations at Driyorejo are more flexible and lead to the formation of a reflective learning ecosystem, while evaluations at Cerme are more quantitative and integrated in a more established digital learning management system.

General Patterns and Synthesis of Findings

From the results of the cross-case comparison, the following general patterns can be identified: both schools make digital literacy a strategy to strengthen reading interest and 21st-century skills; program management requires cross-role collaboration among teachers, students, and school management to ensure the digital literacy program runs optimally; and adaptive, multimodal evaluations have proven effective in capturing students' skill development across cognitive, affective, and psychomotor domains.

However, there are differences in approach that reflect each school's distinctive strategy: SMKN 1 Driyorejo places greater emphasis on learning experiences and active student involvement in designing content, while SMKN 1 Cerme focuses more on the standardization of digital content and managerial efficiency in program management.

CONCLUSION

Based on the results of research on the management of digital literacy programs at SMKN 1 Driyorejo and SMKN 1 Cerme, it can be concluded that the two schools have succeeded in designing and managing digital literacy programs that are effective in increasing students' reading interest and soft skills. Program planning that is tailored to the school context and vocational needs is the main factor in the successful implementation of digital literacy. The organization of programs in both schools shows a management model that is in accordance with their respective structures and cultures, where SMKN 1 Driyorejo develops a collaborative literacy team across teachers and students, while SMKN 1 Cerme integrates programs in the school bureaucracy. The implementation of digital-based programs through various media and platforms has been able to activate maximum student involvement. Program evaluations carried out in a formative and summative manner also contribute to the continuous improvement of students' literacy and skill achievements. Overall, this study emphasizes that adaptive and contextual digital literacy program management can be an effective strategy in supporting the development of students' reading interest and soft skills in vocational education, as well as encouraging their readiness to face the challenges of the digital era.

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