

## (The Role of Information Management Systems in Improving the Quality of Learning in Muhammadiyah Vocational Schools in Bandung City)

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### Abstract

*The development of a school information system aims to make it easier for all school members to access information efficiently and effectively, therefore a school management information system must be implemented in a school to make decisions. The education section has an important role in the education management information system, especially in planning, monitoring, monitoring, evaluation. Apart from that, this research aims to discuss further the implementation of management information systems to improve the quality of learning services in vocational schools. A qualitative approach is used in this research. The research population at Muhammadiyah Vocational Schools in Bandung City. This research aims to find out how to plan the implementation and evaluation of information systems in schools improve the quality of learning in schools based on research results showing that the use of school management information systems has been implemented well by schools and can improve student learning outcomes*

**Keywords:** *system, information, education*

### Abstrak

Pembangunan sistem informasi sekolah bertujuan untuk mewujudkan kemudahan kepada semua warga sekolah dalam mengakses informasi secara efisien dan efektif oleh karena itu sistem informasi manajemen sekolah harus diterapkan di sebuah sekolah untuk mengambil keputusan bagian pendidikan memiliki peranan penting dalam sistem informasi manajemen pendidikan terutama dalam perencanaan pengawasan pemantauan evaluasi selain itu penelitian ini bertujuan untuk membahas lanjut tentang penerapan sistem informasi manajemen untuk meningkatkan kualitas layanan belajar di SMK pendekatan kualitatif digunakan dalam penelitian ini populasi penelitian di SMK Muhammadiyah di Kota Bandung penelitian ini bertujuan untuk mengetahui bagaimana cara perencanaan pelaksanaan dan evaluasi sistem informasi di sekolah dalam meningkatkan kualitas pembelajaran di sekolah berdasarkan hasil penelitian menunjukkan bahwa penggunaan sistem informasi manajemen sekolah sudah berjalan dengan baik dilaksanakan oleh sekolah dan dapat meningkatkan hasil pembelajaran siswa

**Kata Kunci:** *sistem informasi pendidikan*

### INTRODUCTION

Technological developments in the 4.0 era have become something that cannot be avoided by every human being, wherever they are. Using information and communication technology in education is necessary to keep up with the times. One example is the school management information system, which allows the learning process to take place well and efficiently.

Components such as processes, procedures, organizational structure, human resources, management, and organizational culture are needed to form a functioning information system and help the success of the teaching and learning process in schools. (Widodo, 2022). Every person or organization is increasingly interested in using advanced information technology, which makes it easier to carry out daily work. The organizational education sector is one that takes advantage of advances in information

technology. These components contribute to the success of the educational process. (Martono, 2023) As a process of decision making, planning, organizing, leadership and supervision—especially in the field of education—requires information. A management information system (MIS) is a system that regularly provides information to managers. This information is used to monitor and assess activities and desired outcomes.

In this case, the management information system really helps teachers and education staff in carrying out the education management process. In addition, a management information system will make it easier to get information about all information related to educational institutions. (Faisal, 2021)

The 2013 curriculum has been changed to the Independent Learning Curriculum as part of the development of the education system in

Indonesia. The aim is to develop productive, creative, innovative and affective individuals, by strengthening the principles of Pancasila as the basis for improving the quality of learning as capital for building a civilized nation. As a result, every organization tries to implement information systems or technology to increase the efficiency and effectiveness of the education management process. (Mayasari, 2021). The National Examination has been changed to the Minimum Competency Assessment (AKM) and Character Survey, which is the Independent Learning program launched by the Indonesian Ministry of Education and Culture. AKM assesses the ability to reason using language (literacy), the ability to reason using mathematics (numeracy), and strengthening character education. (Sherly, 2021)

Based on data from the Student Affairs Section and Guidance and Guidance Teachers at the school, it is proven that the achievements of students at the school are still not up to expectations. The availability of management information system facilities and infrastructure in each school certainly varies, these conditions always influence the level of success of each program implemented in the school and determine the quality of learning in the school, which in turn determines the level of success or success in championships and achievements

The differences in the availability of infrastructure at each Muhammadiyah vocational school in the city of Bandung certainly result in varying quality of the Merdeka curriculum so that differences often occur in terms of program success, participation in competitions and championships or the involvement of all school members.

Given that there are still several discrepancies between the information system facilities available in schools, the author considers it very necessary to conduct a research entitled Paper on School Management Information Systems in Improving the Quality of Learning in Muhammadiyah Vocational Schools in Bandung City which will be very useful for improving the quality of student learning.

### Objective of the Study:

- How to Implement Information Systems in Muhammadiyah Vocational Schools in Bandung City
- How to Apply Information Systems to Improve the Quality of Learning in Muhammadiyah Vocational Schools in Bandung City
- What is the Role of Information Systems in Improving the Quality of Learning in Muhammadiyah Vocational Schools in Bandung City

### METHOD

The research method used in this research uses qualitative methods. According to Sugiyono, qualitative research methods are research methods used to examine the conditions of natural objects where the researcher is the key instrument (Sugiyono, 2016). Qualitative research has the characteristics of textual analysis or in Creswell's view as quoted (Zuhri Abdussamad, 2021) that qualitative research is interpretive research, in which the researcher is involved in continuous and continuous experience with the participants. The method in this research is descriptive analysis.

In terms of collecting data obtained from various sources, settings, and various methods in this research, this research is through interviews study. This was given to 3 participants from Muhammadiyah Vocational Schools in Bandung City, each of whom had a role in determining the quality of learning in their respective schools, starting from the position of Deputy Principal for Curriculum and Teacher by conducting interviews and direct observation of the participants, the validity of the data in the research This uses data triangulation.

### RESULTS AND DISCUSSION

The implementation of information systems in schools has been presented in almost every school throughout the archipelago.

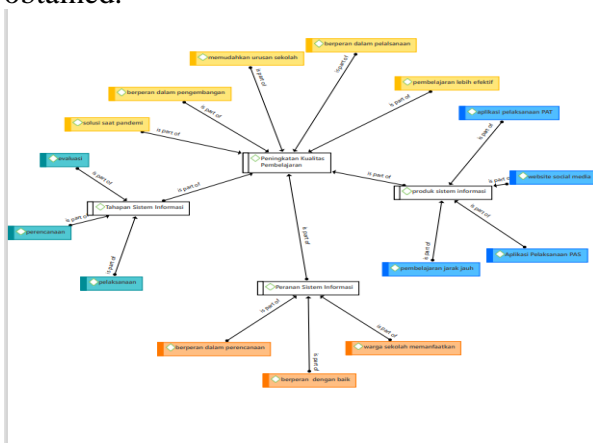
Based on the results of research carried out at Muhammadiyah Vocational School in the city of Bandung, it shows that planning, implementation and evaluation processes are needed to implement an Information Technology



Name	Grounded	Name	Grounded
◇ maningkatkan kualitas pembelajaran	1	◇ Aplikasi Pelaksanaan PAS	1
◇ memanfaatkan sistem informasi	2	◇ aplikasi pelaksanaan PAT	1
◇ memudahkan urusan sekolah	1	◇ bangga	1
◇ meningkatkan kualitas pembelajaran	2	◇ berperan dengan baik	1
◇ pelaksanaan	1	◇ berperan dalam pelaksanaan	1
◇ pembelajaran jarak jauh	1	◇ berperan dalam pengembangan	1
◇ pembelajaran lebih efektif	1	◇ berperan dalam perencanaan	2
◇ pengakuan	2	◇ dasar sistem informasi	0
◇ pengalaman	2	◇ evaluasi	1
◇ Pengembangan	1	◇ gembira	1
◇ Peningkatan Kualitas Pembelajaran	0	◇ Kebanggaan	1
◇ Peranan Sistem Informasi	0	◇ Kepercayaan	1
◇ perencanaan	1	◇ keyakinan	1
◇ produk sistem informasi	0	◇ kualitas pembelajaran siswa	1
◇ Semangat	1	◇ maningkatkan kualitas pembe...	1
◇ Sisitem Manajemen Informasi	0	◇ memanfaatkan sistem informasi	2
◇ solusi saat pandemi	1	◇ memudahkan urusan sekolah	1
◇ Tahapan Sistem Informasi	0	◇ meningkatkan kualitas pembe...	2
◇ tuntutan Dinas Pendidikan	1	◇ pelaksanaan	1
◇ warga sekolah memanfaatkan	2	◇ pembelajaran jarak jauh	1
◇ website social media	1		

Figure 1. List of Participant Codes

From the codes obtained from all of the participants, the following concept map was obtained:



Based on the findings of the research results/based on the resulting concept map, this research has a novelty consisting of four roles of the information management system where the components in the information system can improve the quality of learning.

These findings are relevant to the theoretical study of Ratih Hendrawati (2017)

"Apart from the business, banking, government and hotel sectors, education management information systems are also starting to be used in the education sector. This

really helps improve the quality of education by building a management information system that is able to keep up with changing times. (Hendriani, 2017)

La Ode Ismail Ahmad and Ristati Sinen in their research in 2017 in their research entitled Application of Education Management Information Systems in the Learning Process at SMP Negeri 21 Makassar concluded that information systems can improve student learning outcomes (SINEN, 2017). Likewise in research carried out by Siti Hajar Loilatu, M. Rusdi and Musyawir in 2021 in their research entitled Application of Education Management Information Systems in the Learning Process which concluded that by utilizing information systems the quality of learning increases (Siti Hajar L, 2020)

Based on the findings above, it can be concluded that in order to produce a good information system, planning, implementation and evaluation stages are needed with the following explanation: (Saryatni, 2020):

#### A. Information Systems Planning, in Improving Student Learning

In this learning planning, academic SIM planning is the result of a deep thinking process and choosing options that are

considered to have better information results. By planning, what will be done, how to do it, what must be done, and who will do it are determined first. Planning also helps determine the goals and steps for implementing information technology-based Academic SIM. This includes creating a website or application to provide program planning and describe activity steps. These principles apply to manual, electromechanical and computer information systems. To ensure accurate information, the Academic SIM is created collectively or supervised by a special team.

### **B. Implementation of Information Systems, in Improving Student Learning**

Academic Management Information System planning is followed by the implementation of the Academic Management Information System (Academic SIM), which is an important component of Academic SIM implementation management to improve the quality of education. To achieve this goal, academic information systems must be used effectively by integrating all available resources. Thus, it is hoped that the implementation of academic information systems will produce positive results.

There are 3 points that should be present in the use or implementation of education management information systems to improve the quality of learning, namely

1. Availability of qualified and balanced human resources
2. Regular data storage procedures and mechanisms.
3. There are adequate supporting facilities.

### **C. Evaluation of Information Systems, in Improving Students' Learning**

At Muhammadiyah Vocational Schools 2 and 3, evaluation is used as an activity to provide considerations regarding

the value and meaning of something being considered. Evaluation is carried out with two characteristics: evaluation as a process and evaluation as providing value or meaning. Evaluation as a process consists of a series of actions, while evaluation as giving a grade means showing the quality being assessed. The presence of fast, accurate and precise data is one of the characteristics of effective school management.

### **CONCLUSION**

Educational management information system applications are increasingly popular, not only for companies, banks, governments, or the hotel industry. Education management information systems improve the quality of learning and adapt to the times.

Educational management information systems have many positive and negative effects. Positive effects include increased organizational efficiency because necessary information can be accessed quickly and accurately, resulting in more effective and efficient work. Conversely, negative effects include a reduction in the workforce as developments replace jobs previously performed by people. Information technology: The role of information systems in education management cannot be avoided. Modern educational institutions must have adequate availability of information technology to improve the quality of learning.

### **SUGGESTION**

A paper is a written work that discusses a particular theme. Papers usually focus more on knowledge. Papers are written systematically and follow paper writing standards. In terms of collecting material, you must also pay attention to literature review.

### **THANK-YOU NOTE**

I would like to express my deepest gratitude to Allah subhanahu Wa ta'ala, my parents and especially to the teaching lecturers at Ahmad Dahlan University who have supported me in completing this research.

**BIBLIOGRAPHY**

- Afipudin. (2021). Manajemen Strategik Teori Dan Implementasi. . *Banyumas : Pena Persada.*, -.
- Andy Feri, M. K. (2023). Sistem Manajemen Boarding School Dalam Membentuk Karakter Siswa Melalui Implementasi Project Penguatan Profile Pelajar Pancasila (P5) Di SMSA AlMumtaz Kota Solok. *Jurnal Of Social Science Research*, 3.
- E Triandini, S. J. (2019). Metode Systematic Literature Review untuk Identifikasi Platform dan Metode Pengembangan Sistem Informasi di Indonesia. *Indonesian Journal of Information Systems (IJIS)*, 4.
- Faisal, F. (2021). SISTEM PENGELOLAAN PENDIDIK DAN TENAGA KEPENDIDIKAN BERBASIS SIMDIK DALAM MANAJEMEN PENDIDIKAN ISLAM. *Jurnal Ilmu Manajemen Terapan*, 1.
- Hendriani, R. (2017). PENERAPAN SISTEM INFORMASI MANAJEMEN PENDIDIKAN DALAM. -, 6.
- Hidayat, T. (2020). Sistem Informasi Penerimaan Peserta Didik Baru Online Berbasis Websitedi Yayasan Pendidikan Arya Jaya Sentik. *Komputika: Jurnal Sistem Komputer*, 3.
- Martono, F. X. (2023). Urgensi SIMDIK dalam Mewujudkan Tujuan Pendidikan. -, <https://smpn3bojongpekalongan.sch.id/wp-content/uploads/2021/07/Urgensi-SIMDIK.pdf>.
- Mayasari, A. (2021). Implementasi Sistem Informasi Manajemen Akademik Berbasis Teknologi Informasi dalam Meningkatkan Mutu Pelayanan Pembelajaran di SMK. *Jurnal Ilmiah Ilmu Pendidikan*, 1.
- Paskalis Andrianus Nani, N. M. (2023). IMPLEMENTASI EXTREME PROGRAMMING DALAM PENGEMBANGAN SISTEM PENCATATAN DAN PELAPORANKASUS PADA GUGUS TUGAS PERCEPATAN PENANGANAN COVID-19 PROVINSI NTT. *Jurnal Sistem Informasi*, 1.
- Saryatni, L. (2020). TEKNOLOGI PENDIDIKAN SEBAGAI PELAKSANAAN SISTEM INFORMASIDALAM PERKULIAHAN ONLINE DI MASA PANDEMI COVID-19. -, 3.
- Seno Abi Yudha, Z. A. (2019). PERSEPSI MAHASISWA TERHADAP PELAKSANAAN E-LEARNINGDALAM MATA KULIAH MANAJEMEN SISTEM INFORMASIMAHASISWA JURUSAN TEKNOLOGI