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Data-Based Educational Quality Improvement Planning

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Abstract: This study aims to analyse the data-driven education quality improvement planning at SMA Negeri 1 Blora. Data-based planning enhances education quality through structured steps: identification, reflection, and improvement. This research uses a descriptive qualitative approach, with data collection techniques through observation, interviews, and documentation. The results show that the planning process at SMA Negeri 1 Blora begins with data collection through educational reports and evaluations of previous programs, followed by identifying issues by each relevant department. Reflection is conducted by analysing the data to identify root causes and formulate priority improvements. Improvement programs are then developed in the Annual Work Plan (RKT) and School Activity and Budget Plan (RKAS). Program implementation involves the entire school community, and evaluations are conducted regularly to ensure the success and relevance of the implemented programs. The results of the assessments are used for continuous improvement in budget and implementation strategies. This study concludes that structured data-based planning can enhance the quality of education and positively impact the educational practices at SMA Negeri 1 Blora.

Keywords: Data-Based Education, Quality Improvement Planning, Implementation Strategies, Positive Impact, Educational Practice.

Introduction

Education is the foundation for the development of a nation. Educational institutions, as educational entities, bear a significant responsibility to ensure that their students receive quality education. School programs must be designed according to current needs based on real conditions to achieve quality education. Therefore, educational institutions need to develop data-driven planning. Law No. 20 of 2003 stipulates that the national education system must ensure equal education opportunities, improve quality, and ensure the relevance and efficiency of educational management. This system is expected to face challenges in line with the demands of local, national, and global changes through planned, directed, and sustainable reforms. Additionally, changes in regulations, environmental needs, and the evolving

characteristics of students require educational institutions to develop strategies and plans that maintain the quality of education[1].

Improvement in education quality can be achieved by developing data-driven planning based on educational reports. The educational report provides a snapshot of the current situation faced by educational institutions. Government Regulation No. 57 of 2021 explains that the government offers Educational Reports that present the conditions of educational institutions based on data from assessments and national surveys involving educational institutions and regions. Since its release in 2022, the educational report platform has become an essential source of information for school stakeholders to understand the achievements and challenges of educational institutions in realising quality education in Indonesia[2]. The educational report provides evaluation results of educational services as an enhancement of the Quality Report. The Educational Report platform's indicators are structured based on the input, process, and output of education. Article 28 of Ministerial Regulation No. 09 of 2022, concerning the evaluation of the education system by local governments for PAUD and primary and secondary education, explains the use of the educational report. This article states that educational institutions use the evaluation results by the central and local governments to identify educational problems that need to be prioritised based on the indicators in the institution's profile or the equivalency education program profile to investigate the root problems, formulate corrective actions, and plan programs to address these root problems[3].

Educational reports are the primary reference for data-driven planning in government-regulated educational institutions. However, many educational institutions have not optimally utilised these reports. Many schools still develop their programs based on previous year's programs or merely as routine, without following the data-driven planning steps outlined in the educational report, namely identification, reflection, and improvement. Identification means that the educational

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[1] Aminatul, Zahro. *Total Quality Management Teori & Praktik Manajemen Untuk Mendongkrak Mutu Pendidikan.* Yogyakarta: Ar-Ruzz Media, 2014.

[2] Wahjosumidjo. *Kepemimpinan Kepala Sekolah: Tinjauan Teoritik dan Permasalahannya.* Raja Grafindo Persada, 2013.

[3] Harahap, F., and R. Rusdinal. "The Influence of Principal Managerial Competency toward Teachers Productivity with Mediation of Organizational Citizenship Behavior and Interpersonal Communication." *Jurnal Manajemen Pendidikan*, vol. 45, no. 16, 2017, pp. 290–299.

institution gathers data and interprets the conditions of the institution. Reflection means that the institution sets priorities for improving educational services. Improvement means planning to enhance educational services and periodically implementing and evaluating the results[4].

Data-based planning is essential for educational institutions to implement targeted programs and procurement processes, thereby improving the quality of education in their institutions. If the school's program planning is not structured correctly, it becomes an obstacle to improving its educational quality. Therefore, schools need to make various efforts to enhance their performance. One of the efforts that can be made is to study institutions that have successfully improved education quality through data-driven planning[5].

Blora Regency has seven public high schools. An analysis of the educational reports from each academic institution is necessary to determine which institution could be a reference for data-driven planning. Based on the educational reports from all the public high schools in Blora Regency, the academic report score of SMA Negeri 1 Blora in 2024 is higher than that of other public high schools in Blora. SMA Negeri 1 Blora has achieved greater success in realising quality education than other public high schools in the Blora Regency. Furthermore, the success in improving education quality is evident in six key indicator achievements. The educational report scores for SMA Negeri 1 Blora in 2022, 2023, and 2024 show an increase in scores for most indicators over these years. According to initial interviews with the principal of SMA Negeri 1 Blora, the school has implemented identification, reflection, and improvement steps to identify root causes, formulate corrective actions, and plan programs to address these issues. SMA Negeri 1 Blora also considers the real needs of the school and evaluates the implementation of programs from previous years to plan the following year's programs[6].

Program planning at SMA Negeri 1 Blora is analysed based on educational reports by the vice principals (waka). Together with the school principal, the Foras (student aspiration forum composed of OSIS

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[4] Mulyasa, E. *Standar Kompetensi dan Sertifikasi Guru.* Remaja Rosdakarya, 2019.

[5] Sagala, S. *Kemampuan Profesional Guru dan Tenaga Kependidikan.* Alfabeta, 2019.

[6] Suryana. "Pengaruh Kompetensi Manajerial Kepala Sekolah dan Kompetensi Guru terhadap Mutu Pendidikan." *Jurnal Pendidikan Indonesia*, vol. 29, no. 5, 2022, pp. 93-99.

and MPK representatives), teachers, administrative staff, and the treasurer, they all contribute to discussing problem analysis, potential needs, identification, reflection, and improvement. SMA Negeri 1 Blora optimises the available human resources in the educational institution according to their respective roles. This collaborative effort makes the SMA Negeri 1 Blora school programs a collective effort to improve the institution's academic quality[7].

SMA Negeri 1 Blora has become one of the leading schools in Blora Regency, with the vision of achieving "GEMILANG". The vision includes being fond of reading, having empathy for others and the environment, practising Pancasila, being innovative, having noble character, actively collaborating to enhance life skills, being nationalist, and striving to achieve excellence. SMA Negeri 1 Blora has achieved numerous academic and non-academic accomplishments, and the success rate of students entering public universities is relatively higher than other public high schools in the Blora Regency. Each year, the demand for enrollment at SMA Negeri 1 Blora remains high, indicating the community's satisfaction with the education provided at the school. Data-based planning for improving education quality is essential for all educational institutions.

Literature Review

Planning comes from the root word "rencana" (plan). According to the *Kamus Besar Bahasa Indonesia*, planning is a process or act of planning (proclaiming). Oroh, Hamenda, and Rotty[8] explain that planning is an activity that determines what should be done and how to do it. Planning involves choosing and connecting facts and making assumptions about the future to visualise and formulate necessary activities to achieve the best outcomes. Burhanuddin[9] defines planning as a systematic process of thinking regarding what will be achieved, activities that need to be done, steps, methods, and implementers required to organise rationally and logically formulated activities with a forward-oriented focus. Manulang[10] explains that planning can be understood as setting an organisation's goals, policies, procedures,

[7] Tjandra, A. *Evaluasi Sistem Pendidikan di Indonesia.* Penerbit Insan Cendekia, 2015.

[8] Oroh, O., Hamenda, B., & Rotty, V.N.J. *Perencanaan Mutu Pendidikan.* Deepublish, 2022

[9] Burhanuddin, A. *Analisis Administrasi Manajemen dan Kepemimpinan Pendidikan.* Jakarta: PT. Bumi Aksara, 1994.

[10] Manulang, M. *Dasar-Dasar Manajemen.* Gadjah Mada University Press, 2002

budgets, and programs. Koontz and O'Donnel in Machali & Hidayat[11] define planning as a rational and systematic thought process about what will be done, how it will be done when it will be done, and who will do it. This process is conducted to improve quality so that activities can be effective, efficient, and productive and meet societal demands.

Oroh, Hamenda & Rotty[12] explain that planning contains normative and measurable elements. The normative elements include vision and mission, while the measurable elements include goals, objectives, strategies, and policies. Koontz, Donnel & Weihrich in Oroh, Hamenda & Rotty[13] state that planning contains goals, policies, procedures, budgets, and programs. Goals are everything to be achieved in the organisation's efforts, while policies are the guidelines to reach these goals. Procedures describe the stages of work implementation that need to be carried out, while the budget covers the operational costs required to achieve the goals.

According to Kanada & Zulkipli[14], educational planning involves designing various alternative options and steps for future training to achieve maximum targets while considering economic, social, and community interests. Bebby in Kanada & Zulkipli[15] defines educational planning as predicting future educational needs and costs by evaluating financial, social, and political dimensions. States that educational planning is a process to prepare future training to improve the quality of learning. Asserts that educational planning is the act of investing resources in education by considering factors such as costs, social benefits, and financial aspects. Coombs in Kanada & Zulkipli[16] explains that educational planning is a rational and practical effort to improve learning quality, making it more productive, sustainable, and adaptable to current needs.

Kanada and Zulkipli[17] state that it must adhere to basic principles to create effective planning. These principles include collecting data on current conditions, considering success factors, and conducting a SWOT analysis to evaluate strengths, weaknesses, opportunities, and threats.

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[11] Machali, I. & Hidayat, A. *The Handbook of Education Management Edisi Kedua.* Prenadamedia Group, 2018

[12] Oroh, O., Hamenda, B., & Rotty, V.N.J. *Perencanaan Mutu Pendidikan*

[13] Oroh, O., Hamenda, B., & Rotty, V.N.J. *Perencanaan Mutu Pendidikan*

[14] Kanada, R., and Zulkipli. *Perencanaan Pendidikan Kajian Teori dan Aplikasi.* Jakarta: Kencana-Prenadamedia Group, 2024.

[15] Kanada, R., and Zulkipli. *Perencanaan Pendidikan Kajian Teori dan Aplikasi.*

[16] Kanada, R., and Zulkipli. *Perencanaan Pendidikan Kajian Teori dan Aplikasi.*

[17] Kanada, R., and Zulkipli. *Perencanaan Pendidikan Kajian Teori dan Aplikasi.*

Additionally, educational planning must involve all relevant parties and consider effectiveness, efficiency, transparency, legality, and democratic participation. Stoner and Wankel in Suyitno[18] explain that educational planning must be precise and summarised in four key steps: situation analysis, setting goals, formulating strategies, and developing work programs. Situation analysis uses SWOT analysis to assess the opportunities and issues arising from trends and user situations. Meanwhile, Banghart and Trull in Suyitno[19] explain that the stages of educational planning begin with the introduction, identifying educational problems, and evaluating and determining the plans to be implemented.

According to *Kamus Besar Bahasa Indonesia*, quality is defined as the measure of goodness or badness of an object or its quality. Mulyasa[20] explains that quality is an overall depiction and characteristic of goods and services that show their ability to satisfy expected needs. Oroh, Hamenda & Rotty[21] add that quality is the degree of conformity a product user desires. Education is a service in the form of a cultural process involving inputs such as students and facilities and outputs from graduates, which serve as a quality measure. Machali & Hidayat[22] explain that educational quality includes the entire educational process, namely input, process, and output, which must be well-managed to produce quality education.

Kanada & Zulkipli[23] explain that to achieve high-quality standards, the education system in Indonesia needs to implement a new paradigm emphasising autonomy, accountability, accreditation, and evaluation. Essential steps include building collaborative relationships between stakeholders, fostering intrinsic motivation among staff, focusing on long-term results, and implementing sustainable education quality management. Sihombing & Samosir[24] explain that improving educational quality heavily depends on the readiness of human

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[18] Suyitno, M "Proses Perencanaan Pendidikan". Dalam Ahmad Choirul Ma'arif (Ed), *Perencanaan Pendidikan.* PT Sada Kurnia Pustaka, 2020

[19] Suyitno, M "Proses Perencanaan Pendidikan". Dalam Ahmad Choirul Ma'arif (Ed), *Perencanaan Pendidikan*

[20] Mulyasa, E. *Standar Kompetensi dan Sertifikasi Guru.* Remaja Rosdakarya, 2019, p. 75.

[21] Oroh, O., Hamenda, B., & Rotty, V.N.J. *Perencanaan Mutu Pendidikan*

[22] Machali, M., and Hidayat, H. *Manajemen Pendidikan dan Pembelajaran.* Penerbit Universitas Pendidikan Indonesia, 2018.

[23] Kanada, R., and Zulkipli. *Perencanaan Pendidikan Kajian Teori dan Aplikasi.*

[24] Sihombing, S., and Samosir, L. "Penerapan Data-Driven Decision Making dalam Pendidikan: Studi Kasus di Sekolah Menengah." *Jurnal Pendidikan dan Manajemen*, vol. 21, no. 4, 2021, pp. 617–625.

resources in the educational process. The improvement of academic quality in educational institutions serves to enhance the results of educational implementation and align them with the policies that have been established.

The data-based planning theory is known as Data-Driven Decision Making (DDDM). Marsh, Pane, & Hamilton[25] explain that DDDM in education refers to teachers, principals, and administrators who systematically collect and analyse various data types, including input, process, outcome, and satisfaction data, to improve student and school success. The data-driven decision-making process also involves collecting, analysing, and synthesising data to prioritise potential solutions[26]. Kemendikbudristek[27] explains that Data-Driven Planning (DDP) aims to improve budget spending and enhance the management system of educational institutions effectively and accountably, using data from the Educational Report platform to drive continuous quality improvement in education.

Research Methods

This study uses a descriptive qualitative approach to gain a deep understanding of data-driven education quality improvement planning at SMA Negeri 1 Blora. The qualitative approach was chosen because it aligns with the research goal of exploring the existing phenomena' potential, problems, and meaning. Sugiyono[28] explains that qualitative research examines and identifies potential issues and understands processes and social interactions. This research also focuses on describing the phenomenon in depth, with data collected in words or images, not just numbers, making it easier for others to understand[29].

This study was conducted at SMA Negeri 1 Blora, Blora Regency,

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[25] Marsh, J.A., Pane, J.F., and Hamilton, L.S. *Making Sense of Data-Driven Decision Making in Education: Evidence from Recent RAND Research.* RAND Corporation, 2006.

[26] Schifter, D., Trull, T., and Steger, D. "Data-Driven Decision Making: A Framework for Achieving School Improvement." *Educational Policy Studies Journal*, vol. 39, no. 3, 2014, pp. 418–422; Cristofaro, M., Giardino, P.L., and Barboni, L. "Growth Hacking: A Scientific Approach for Data-Driven Decision Making." *Journal of Business Research*, vol. 186, 2025, pp. 115030.

[27] Kementerian Pendidikan, Kebudayaan, Riset dan Teknologi. *Buku Saku Cara Melakukan Perencanaan Berbasis Data untuk Satuan Pendidikan*. Kementerian Pendidikan, Kebudayaan, Riset dan Teknologi, 2024

[28] Sugiyono. *Metode Penelitian Kualitatif dan Kombinasi (Mixed Methods).* Alfabeta, 2024.

[29] Sugiyono. *Metode Penelitian Kualitatif dan Kombinasi (Mixed Methods).*

Central Java Province. The research was carried out from 2024 to 2025, including data collection, analysis, and report preparation, as outlined in the research schedule table. The study used a descriptive qualitative approach to observe and describe the school's data-driven education quality improvement planning. The research was conducted in three stages: pre-fieldwork, fieldwork, and data analysis.

In the pre-fieldwork stage, the researcher visited SMA Negeri 1 Blora to obtain research permission from the principal and access necessary documents. The researcher also conducted a brief interview with the principal to gather initial information about the data-driven planning implemented at the school. During the fieldwork stage, the researcher collected data through observation, interviews, and documentation conducted directly with the research subjects. The researcher actively gathered data according to the research object and recorded relevant information. Subsequently, during the data analysis stage, the researcher analysed the data obtained through interviews, observations, and documentation using triangulation techniques to ensure the accuracy and credibility of the collected data.

The main instrument in this research is the researchers themselves. Sugiyono[30] explains that in qualitative research, the researcher acts as the key instrument in data collection. Data collection techniques were carried out using triangulation, which included observation, interviews, and documentation. The researcher played an active role in the data collection through interview guidelines and observations.

The data collection techniques used in this study included observation, interviews, and documentation study. The observation was conducted by directly observing the behaviour and conditions of the research subjects. Creswell[31] states that qualitative researchers collect data in the field by speaking directly with the community and observing their behaviour in a natural setting. The interviews conducted in this study were unstructured, where the researcher talked with informants without using detailed questions but focused on the broad issues that emerged during the interview process. Additionally, documentation complemented the data obtained from interviews and observations, including meeting minutes, evaluation reports, and data related to the data-driven planning at SMA Negeri 1 Blora. To test the validity of the

[30] Sugiyono. *Metode Penelitian Kualitatif dan Kombinasi (Mixed Methods).*

[31] Creswell, J.W. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches.* 5th ed., SAGE Publications, 2023.

data, the researcher used the source triangulation technique, which aims to verify the accuracy of the data by cross-checking the same data through different sources and methods. This triangulation technique aims to enhance the credibility of the data and ensure the consistency of findings from various sources of information.

Data analysis in this study used the interactive data analysis model by Miles and Huberman. This model includes four main components: data collection, data condensation, data presentation, and conclusion/verification. Data was collected through interviews, observations, and documentation to answer the research questions. Data condensation involves selecting, simplifying, and focusing the collected data, making it stronger and more focused on the research objectives. Data was presented in the narrative text to describe essential findings in this research. Finally, conclusions were drawn after the collected data was validated and thoroughly examined to ensure that the conclusions drawn were credible and valid.

Results and Discussions

The data-driven education quality improvement planning at SMA Negeri 1 Blora involves various components within the managerial team, which consists of the principal, the vice principal for curriculum, the vice principal for student affairs, the vice principal for facilities, the vice principal for public relations, administrative officer, SPMI chairperson, treasurer, and the school committee chairperson. The planning process is carried out through Identification, Reflection, and Improvement. Information is collected through observation, interviews, and document analysis in the identification stage. This process involves the entire school community, including teachers, students, school committees, and the surrounding community. Interviews with the principal, vice principal for curriculum, vice principal for student affairs, and the school committee indicate that the identification process involves gathering data from the educational report, evaluations from the previous year, and inputs from various stakeholders. Students also provide input through the student aspiration forum (Foras).

Additionally, SMA Negeri 1 Blora considers the previous year's activity evaluation results and internally collected data. In the reflection stage, SMA Negeri 1 Blora uses data obtained from the educational report and self-analysis by the school to identify the root causes of problems and set priorities for improvement. These data are compiled to formulate the school's program planning that aligns with the student's

needs. Based on interviews with the principal, curriculum vice principal, and student affairs vice principal, reflection compares the educational report data and the results of the previous year's activity evaluation. Successful programs are maintained, while those that need improvement are included in the annual work plan (RKT) and school activity and budget plan (RKAS). In the improvement stage, strategic planning is developed based on the established priority areas for improvement. Programs that have been analysed and approved are included in the RKT and RKAS, both those requiring funding and those that do not. This process involves the entire management team to ensure that all programs are implemented according to priority. Interviews with the principal, vice principal for curriculum, vice principal for student affairs, and treasurer show that strategic planning involves budget analysis to ensure that each program can be funded according to the established priorities.

Program implementation is done through socialisation with all parties involved, including teachers, students, school committees, and parents. Programs with no funding are still supported by other funding sources, such as alumni, donors, and student entrepreneurship activities. Interviews with the principal for curriculum, vice principal for student affairs, and vice principal for public relations indicate that program implementation involves the entire school community to ensure all programs can run smoothly and achieve the expected goals. Program evaluations are conducted regularly to assess success and identify areas for improvement. The management team conducts evaluations and involves students' and parents' participation through the student aspiration forum (Foras) and parenting activities. Interviews with the principal, vice principal for curriculum, vice principal for student affairs, and treasurer show that evaluations are conducted at the end of each program, the end of the semester, and the end of the fiscal year. This evaluation helps assess the extent to which the program is running as planned and for planning the following program. Continuous improvement is carried out based on the program evaluation results. If a program is not running as planned or needs adjustment due to certain conditions, the school immediately addresses it through a management meeting. Improvement decisions involve the principal, vice principals, program managers, and the treasurer. After the evaluation results are agreed upon, the school treasurer revises or shifts the budget using the ARKAS application.

The findings from this study show that the data-driven education

quality improvement planning at SMA Negeri 1 Blora is carried out through three main steps: Identification, Reflection, and Improvement. Each of these steps involves the entire school community and is executed with a systematic approach. The programs developed based on reflection and problem identification results are then included in the RKT and RKAS to ensure smooth implementation. Evaluation is carried out periodically, and the evaluation results are used for continuous improvement in implementing school programs.

The results of this study show that the data-driven education quality improvement planning at SMA Negeri 1 Blora is carried out through three main steps: Identification, Reflection, and Improvement. Each of these steps involves the entire school community and is implemented using a systematic approach. Programs developed based on the results of reflection and problem identification are then included in the Annual Work Plan (RKT) and the School Activity and Budget Plan (RKAS) to ensure smooth implementation. Evaluation is conducted periodically, and the evaluation results are used for continuous improvement in implementing school programs.

The identification process in data-driven education quality improvement planning at SMA Negeri 1 Blora consists of two main components: gathering information and identifying problems. Information is collected through educational reports and additional data independently gathered by the school, such as evaluations of the previous year's programs and input from teachers, academic staff, students through the Student Aspiration Forum (FORAS), parents, and the school committee. Once the data is collected, each department identifies problems, and the vice principal (waka) is responsible. This process includes analysing educational report indicators that show low achievements, comparing them with previous activity evaluations, and filtering input from the school community. Each department prepares the identification results and uploads them to a link the SPMI team provides, which is then compiled. The compiled results are discussed in meetings to determine the priority problems to be addressed. This identification step is in line with Huang et al.[32], who explain that by using data to monitor and track key performance indicators, organisations can identify areas for improvement and implement strategies to increase

[32] Huang, J., Irfan, M., Fatima, S.S., and Shahid, R.M. "The Role of Lean Six Sigma in Driving Sustainable Manufacturing Practices: An Analysis of the Relationship between Lean Six Sigma Principles, Data-Driven Decision Making, and Environmental Performance." *Frontiers in Environmental Science*, vol. 11, 2023

efficiency and reduce costs. Marsh, Pane, & Hamilton[33] explain that once collected, raw data must be organised and combined with situational understanding (insights regarding the observed data) through analysis and summarisation to generate information.

Reflection in data-based education quality improvement planning at SMA Negeri 1 Blora is carried out through two main approaches: referring to recommendations from the Ministry of Education and Culture as stated in the Educational Report and through self-analysis conducted by the educational institution. These two approaches are combined to identify the root causes of problems and set priorities for improving education services in line with student needs. The reflection process involves various stakeholders, including the principal, vice principals, SPMI chairperson, educational staff, and the school committee, all allowed to provide input and engage in discussions and evaluations of previous programs. Reflection is also supported by data and documents such as the Educational Report, IRB analysis sheets, and meeting minutes for assessments and reflections. This approach shows that SMA Negeri 1 Blora follows the system set by the central government and actively explores real needs within the school to develop more targeted and impactful programs. This reflection process aligns with the view of Cristofaro, Giardino, & Barboni[34], who explains that the data-driven decision-making process, after identifying the problems and gathering information, involves identifying alternatives, interpreting data, and generating potential solutions. Another relevant perspective is provided by Marsh, Pane, & Hamilton[35], who state that in the DDDM concept, information becomes actionable knowledge when data users synthesise information, apply their judgment to prioritise it, and consider the relative benefits of possible solutions.

The improvement process at SMA Negeri 1 Blora begins with strategic planning based on priorities. This process starts with a working meeting of the school community, where all parties can provide input on implementing programs. Programs are then developed based on reflection on the educational reports, evaluations of previous programs, and the school's current needs. All programs requiring funding and those

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[33] Marsh, J.A., Pane, J.F., and Hamilton, L.S. *Making Sense of Data-Driven Decision Making in Education: Evidence from Recent RAND Research*

[34] Cristofaro, M., Giardino, P.L., and Barboni, L. "Growth Hacking: A Scientific Approach for Data-Driven Decision Making."

[35] Marsh, J.A., Pane, J.F., and Hamilton, L.S. *Making Sense of Data-Driven Decision Making in Education: Evidence from Recent RAND Research*

not are included in the Annual Work Plan (RKT), and programs requiring budgets are further detailed in the School Activity and Budget Plan (RKAS). If there are important programs that cannot be funded, the school still strives to implement them through alternative funding sources such as alumni and student entrepreneurship activities. Decision-making in developing the RKT and RKAS is based on a series of data collection processes, in line with Schifter et al.[36] (2014:421), who explains that the final step of the DDDM framework used to gather knowledge from raw data is decision-making.

Program implementation, or the implementation phase, is carried out comprehensively and involves various parties within the school environment. The principal and their team actively socialise the program with teachers, educational staff, students, the school committee, and parents to gain maximum support. Planned activities do not just remain as administrative documents but are truly carried out with a collaborative spirit. Activities not covered by the official budget are still implemented by seeking creative solutions, such as alum contributions or student entrepreneurship activities. Support and enthusiasm from teachers and the spirit of cooperation are the main strengths in ensuring that all programs run as expected. Program evaluation becomes a routine activity carried out by the school periodically. Evaluation is conducted at the end of the fiscal year and can be carried out after the program ends or even midway through its implementation, if necessary. This activity aims to identify the program's achievements, challenges, and potential improvements for the future. Evaluation is conducted inclusively, involving students and parents through discussion forums and parenting activities. The open and collaborative evaluation process generates many constructive inputs that are useful in designing more targeted and impactful program improvements. This aligns with the view of Maria, Maria Paz, & Isabel[37], who explain that the final step of DDDM in improving school quality is analysing and evaluating the results.

Continuous improvement is a further step following the evaluation process. SMA Negeri 1 Blora implements improvements by revising the programs or budgets based on the previous evaluation

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[36] Schifter, C., Natarajan, U., Ketelhut, D.J., and Kirchgessner, A. "Data-Driven Decision-Making: Facilitating Teacher Use of Student Data to Inform Classroom Instruction." *Waynesville, NC USA: Society for Information Technology & Teacher Education*, vol. 14, no. 4, 2014, pp. 419-432. *LearnTechLib*,

[37] Maria, A., Maria Paz, and Isabel. "Increasing School Quality through Data-Driven Decision Making: Evaluating the Impact of Student-Centered Approaches." *Educational Evaluation and Policy Analysis*, vol. 45, no. 2, 2023, pp. 38-50.

results. This process is not only done once but is dynamically adjusted to meet needs and conditions in the field. A tangible form of this continuous improvement is the revision of the RKAS carried out by the school treasurer after the evaluation meeting. The entire improvement process aligns with the perspective of Cristofaro, Giardino, & Barboni[38], who explains that after identifying alternatives, the next step is synthesising and prioritising alternatives among the hypothesised solutions. Then, the prioritised options are implemented, the impact of the actions is measured, and data is stored. Subsequently, data is shared, and feedback is collected in post-implementation reviews to identify successes and areas needing improvement, thus encouraging continuous improvement.

Conclusion

Based on the background and the study results, it can be concluded that the data-driven education quality improvement planning process at SMA Negeri 1 Blora begins with two main components in the identification process: information gathering and problem identification. Information is collected through educational reports and additional data independently gathered by the school, including the evaluation results from the previous year's programs, input from teachers, academic staff, students through the Student Aspiration Forum (FORAS), parents, and the school committee. After collecting the data, each department identifies problems, with the vice principal (waka) responsible. This process includes analysing educational report indicators that show low achievement, comparing them with evaluations of previous activities, and filtering input from the school community. Each department prepares the identification results and uploads them to the link provided by the SPMI team, which is then compiled and discussed in meetings to determine the priority issues that will be addressed. Reflection in the data-based education quality improvement planning at SMA Negeri 1 Blora is carried out through two main approaches: referring to recommendations from the Ministry of Education and Culture as stated in the Educational Report and through self-analysis conducted by the educational institution. These two approaches are combined to identify the root causes of problems and set priorities for improving education services that align with student needs. The results of this reflection serve as the basis for strategic planning, which involves the entire school community in working meetings to provide input on the programs to be

[38] Cristofaro, M., Giardino, P.L., and Barboni, L. "Growth Hacking: A Scientific Approach for Data-Driven Decision Making."

implemented. Programs developed based on the results of reflection on the educational reports, previous year's evaluations, and school needs are included in the Annual Work Plan (RKT) and the School Activity and Budget Plan (RKAS), with creative solutions through alternative funding if any program is not yet funded.

Program implementation is carried out collaboratively and involves all parties in the school, including teachers, students, the committee, and parents, to ensure maximum support. Program evaluations are conducted periodically to identify achievements and necessary improvements after the program is completed and during its implementation. The evaluation results are used for continuous improvement, including revising the RKT and RKAS, to ensure that the programs remain relevant to the school's needs and can continuously improve the quality of education. The entire data-driven planning process shows that SMA Negeri 1 Blora has successfully created a dynamic system where continuous evaluations and improvements are carried out to adapt to ongoing developments. With this structured approach, the quality of education at the school can be optimally enhanced.

References

Aminatul, Zahro. Total Quality Management Teori & Praktik Manajemen Untuk Mendongkrak Mutu Pendidikan. Yogyakarta: Ar-Ruzz Media, 2014.

Burhanuddin, A. Analisis Administrasi Manajemen dan Kepemimpinan Pendidikan. Jakarta: PT. Bumi Aksara, 1994.

Creswell, J.W. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. 5th ed., SAGE Publications, 2023.

Cristofaro, M., Giardino, P.L., and Barboni, L. "Growth Hacking: A Scientific Approach for Data-Driven Decision Making." Journal of Business Research, vol. 186, 2025, pp. 115030.

Harahap, F., and R. Rusdinal. "The Influence of Principal Managerial Competency Toward Teachers Productivity with Mediation of Organizational Citizenship Behavior and Interpersonal Communication." Jurnal Manajemen Pendidikan, vol. 45, no. 16, 2017, pp. 290–299.

Huang, J., Irfan, M., Fatima, S.S., and Shahid, R.M. "The Role of Lean Six Sigma in Driving Sustainable Manufacturing Practices: An Analysis

of the Relationship between Lean Six Sigma Principles, Data-Driven Decision Making, and Environmental Performance." Frontiers in Environmental Science, vol. 11, 2023

Kanada, R., and Zulkipli. Perencanaan Pendidikan Kajian Teori dan Aplikasi. Jakarta: Kencana-Prenadamedia Group, 2024.

Kementerian Pendidikan, Kebudayaan, Riset dan Teknologi. Buku Saku Cara Melakukan Perencanaan Berbasis Data untuk Satuan Pendidikan. Kementerian Pendidikan, Kebudayaan, Riset dan Teknologi, 2024

Machali, M., and Hidayat, H. Manajemen Pendidikan dan Pembelajaran. Penerbit Universitas Pendidikan Indonesia, 2018.

Machali, I. & Hidayat, A. The Handbook of Education Management Edisi Kedua. Prenadamedia Group, 2018

Manulang, M. Dasar-Dasar Manajemen. Gadjah Mada University Press, 2002

Maria, A., Maria Paz, and Isabel. "Increasing School Quality through Data-Driven Decision Making: Evaluating the Impact of Student-Centered Approaches." Educational Evaluation and Policy Analysis, vol. 45, no. 2, 2023, pp. 38-50.

Marsh, J.A., Pane, J.F., and Hamilton, L.S. Making Sense of Data-Driven Decision Making in Education: Evidence from Recent RAND Research. RAND Corporation, 2006.

Mulyasa, E. Standar Kompetensi dan Sertifikasi Guru. Remaja Rosdakarya, 2019.

Oroh, O., Hamenda, B., & Rotty, V.N.J. Perencanaan Mutu Pendidikan. Deepublish, 2022

Sagala, S. Kemampuan Profesional Guru dan Tenaga Kependidikan. Alfabeta, 2019.

Sihombing, S., and Samosir, L. "Penerapan Data-Driven Decision Making dalam Pendidikan: Studi Kasus di Sekolah Menengah." Jurnal Pendidikan dan Manajemen, vol. 21, no. 4, 2021, pp. 617–625.

Schifter, D., Trull, T., and Steger, D. "Data-Driven Decision Making: A Framework for Achieving School Improvement." Educational Policy Studies Journal, vol. 39, no. 3, 2014, pp. 418–422.

Schifter, C., Natarajan, U., Ketelhut, D.J., and Kirchgessner, A. "Data-Driven Decision-Making: Facilitating Teacher Use of Student Data

to Inform Classroom Instruction." *Waynesville, NC USA: Society for Information Technology & Teacher Education*, vol. 14, no. 4, 2014, pp. 419-432. *LearnTechLib*,

Sugiyono. Metode Penelitian Kualitatif dan Kombinasi (Mixed Methods). Alfabeta, 2024.

Suryana. "Pengaruh Kompetensi Manajerial Kepala Sekolah dan Kompetensi Guru terhadap Mutu Pendidikan." Jurnal Pendidikan Indonesia, vol. 29, no. 5, 2022, pp. 93-99.

Suyitno, M "Proses Perencanaan Pendidikan". Dalam Ahmad Choirul Ma'arif (Ed), Perencanaan Pendidikan. PT Sada Kurnia Pustaka, 2020

Tjandra, A. Evaluasi Sistem Pendidikan di Indonesia. Penerbit Insan Cendekia, 2015.

Wahjosumidjo. Kepemimpinan Kepala Sekolah: Tinjauan Teoritik dan Permasalahannya. Raja Grafindo Persada, 2013.