Implementation of Participatory Data-Based Planning (PDB) in Annual Planning at Primary Schools: Challenges and Impact

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ARTICLE INFO	ABSTRACT
Keywords: Data Based Palnning; Stakeholder Participation; Educational Quality *Article history:* Received 2024-11-25 Revised 2024-11-26 Accepted 2025-03-31	This study aims to explore the implementation of participatory data-based planning (PDB) in the annual planning process at SD Negeri Ungaran 02, Semarang Regency. Using a descriptive qualitative approach with a case study design, this research examines how educational reports are utilized in planning, the role of various stakeholders in the process, and the impact of this approach on improving the quality of education at the school. Data was collected through interviews with the school principal, teachers, school committee members, and parents, as well as through observations and document reviews. The findings reveal that the participatory process of identifying educational reports and involving multiple stakeholders has led to improvements in students' literacy and numeracy skills. However, challenges such as achievement gaps between classes and the limited use of technology in teaching remain. The reflection process on educational reports also highlighted issues such as low parental involvement and variations in teaching quality across classes. While the participatory approach to developing the Annual Work Plan (RKT) ensures broad stakeholder support and alignment with students' needs, the findings indicate that further efforts are needed to address challenges related to parental involvement and the integration of technology in teaching. This study concludes that participatory data-based planning is a crucial strategy for enhancing educational quality, but a more comprehensive approach is required to overcome existing barriers, such as maximizing the use of technology and improving teaching quality consistently across classes. Recommendations are provided for the Department of Education, the school, and teachers to improve the effectiveness of PDB implementation and educational outcomes.
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INTRODUCTION

Data based planning (DBP) is an increasingly important approach in improving the quality of education, where data is used as a foundation for decision-making and designing more effective and efficient policies. DBP in education refers to utilizing data to design programs that are more targeted and aligned with the specific needs of each school. One example of a school that has effectively implemented this approach is SD Negeri Ungaran 02 in Semarang Regency. As an educational institution, data-based planning greatly influences the success of achieving desired educational goals.

According to Wazir in (Wazir, 2016), participation can be defined as an individual's conscious involvement in social interactions in a particular situation. This definition emphasizes that participation is not only about physical presence in a group but also involves mental and emotional engagement that drives individuals to actively contribute to the group's goals. In line with this, Zheng, Hongbiao, & Shenghua in Nurhattati and Ripki (Zheng, H., Hongbiao, Z., & Shenghua, 2021) stated that participation is an individual's mental and emotional involvement in a group that encourages them to contribute to the group's objectives. This means that participation is not just about physical presence but also about contributing thoughts and actions to achieve common goals.

Education is one of the means used by humans to develop their potential (Syarnubi, 2024)**.** In the context of education, planning is a process aimed at identifying and formulating the steps needed to achieve the desired goals. According to (Somantri, 2013), planning is a projection of what will be done to achieve objectives. (Mubin, 2020)m also emphasized that planning is a systematic process in preparing activities to reach specific goals. In the context of education, thorough planning will facilitate the achievement of the established goals.

Educational planning plays a crucial role in improving the quality of learning and graduates. For example, the Strategic Plan of the Ministry of Education and Culture for 2020-2024, as presented by the Minister of Education and Culture of the Republic of Indonesia (2020), affirms that this five-year planning document serves as a reference for the Ministry of Education and Culture in advancing education, culture, research, and technology in Indonesia. Data-based planning provides a strong foundation for designing educational programs that align with the needs and challenges faced.

SD Negeri Ungaran 02, a school located in Ungaran Barat District, Semarang Regency, is an example of the implementation of DBP in the school's annual planning. This school has successfully integrated educational reports as a foundation for planning and consistently encourages active participation from all members of the school and stakeholders. Based on initial interviews with the principal, teachers, and the school committee, it can be concluded that SD Negeri Ungaran 02 prioritizes the use of data in school planning, considering educational reports as a tool to measure achievements and a foundation for planning annual programs.

Data derived from educational reports in 2023 and 2024 shows that SD Negeri Ungaran 02 has achieved encouraging results in several indicators, including literacy and numeracy skills, character development, and the quality of learning. This success is largely attributed to thorough planning and the active participation of the entire school community in designing activities that are relevant to the needs of the school. Achievements such as winning 1st place in the National Mathematics Olympiad (OSN) and 2nd place in the Indonesian language speech contest are concrete evidence that participatory data-based planning has contributed to these successes.

Therefore, this study aims to explore the implementation of participatory data-based planning in the annual planning of SD Negeri Ungaran 02. This study will also discuss how data, particularly educational reports, is used as a foundation for designing school programs and how school participation in planning annual activities can improve the quality of education at this school(Anwar, 2014).

Educational planning is a systematic process aimed at determining directions, objectives, and formulating strategies and steps needed to achieve these objectives. Planning in this context involves identifying, collecting, and optimally allocating resources to ensure the achievement of educational goals.

According to Sa'ud and Makmun in Nardawati, planning is a process of making a series of policies to control the future in accordance with the objectives that have been set (Nardawati, 2021)n. This process involves careful planning and systematic thinking to design strategies and allocate resources. Similarly, Dewey in Appleby, emphasized that educational planning should focus on the learners, so that the designed programs and policies meet their needs and potential (Dewey, 2019)d.

Bruner also stated that educational planning should be flexible and adaptive to adjust to changes in the modern era (Bruner, 2020). In this case, educational planning is not merely theoretical but must be able to adapt to rapid developments.

Good planning must consider both internal and external factors that affect the success of education, and therefore, active participation from various stakeholders is needed to create a plan that is relevant, inclusive, and sustainable. Data-based and participatory planning will help improve efficiency, effectiveness, and accountability in the education system.

Educational policies must be based on decision-making involving careful data analysis and logical considerations. Decision-making functions to generate policies that will guide the education system in achieving its goals. Munawar stated that policies are a series of principles and concepts used to implement leadership in education (Munawar, 2017).

Anwar (2014) explained that decision-making in education must use a systematic approach to analyze problems and seek the most logical solutions. Lipursari mentioned that decision-making involves considering facts and evaluating existing solutions, and each decision must be actionable with available resources (Lipursari, 2013).

One indicator of successful educational policy lies in the ability of leaders to make appropriate and relevant decisions. Fitrah stated that policy and decision-making are interconnected, with policy focusing more on theory, while decision-making deals with practical realities (Fitrah, 2017). Therefore, decisions must be based on objective data analysis and relevant facts.

Data-driven planning (DBP) is becoming increasingly important in the education system. Carlson revealed that the use of data can assist schools in identifying problems, evaluating program success, and improving educational services and quality (Carlson, 2011). According to (Schildkamp, 2012), the use of educational data is key to facilitating improvements in education quality through decision-making based on facts and evidence.

Educational reports, as a comprehensive platform offering system evaluation data, serve to enhance the quality of education. This platform helps educational institutions design more effective programs and policies tailored to the needs of the school. Educational reports, which are part of the "Merdeka Belajar" policy, play a role as an objective measure in educational performance evaluation (Somantri, 2014).

By using the consolidated data in educational reports, schools can more easily identify problems, reflect on achievements, and formulate corrective actions. The use of valid and reliable data forms the basis for more accurate and sustainable strategic planning.

Participation in educational planning is key to creating an inclusive, responsive, and sustainable environment. (Dweck, 2016) emphasized the importance of a growth mindset in encouraging active student participation in education. With this mindset, students are more motivated to participate actively, take on challenges, and learn from their mistakes, which ultimately improves their academic performance.

Jenkins also highlighted the importance of access to digital platforms as a means to enhance student participation in education (Jenkins, 2017). Technology allows the younger generation to engage in various aspects of life, including education, in a more collaborative and innovative way.

(Fullan, 2016) argued that collaborative participation between teachers, students, and parents in school planning can create alignment and strong cohesion, enabling all parties to work toward the same goals. Hargreaves and Shirley emphasized the importance of inclusive participation, involving stakeholders from various backgrounds to ensure that educational planning reflects the needs of all students (Hargreaves, A., & Shirley, 2019). This overall approach shows that active participation in educational planning not only improves the quality of learning but also builds commitment and shared responsibility among stakeholders, which ultimately positively impacts educational success.

METHODS

This study employs a descriptive qualitative approach with a case study design to provide a detailed and in-depth description of the implementation of participatory data-based planning (DBP) at SD Negeri Ungaran 02 in Semarang Regency. A case study approach was chosen due to its ability to deeply explore and understand the phenomena within their real-life context, especially in the unique setting of a school implementing DBP. According to (Sugiyono, 2019), qualitative research is descriptive, where data is collected in the form of words or images rather than numbers. This method

is grounded in post-positivist philosophy and is used to study the natural conditions of an object, with the researcher acting as the main instrument. Data collection is performed through triangulation, the analysis is inductive, and the results emphasize meaning rather than generalization. This study aims to understand the phenomena occurring in the field, including the interactions among school stakeholders in the preparation of annual planning based on educational reports. As explained by (Moleong, 2018), qualitative research seeks to understand phenomena holistically and descriptively in their natural context using natural methods.

This research was conducted at SD Negeri Ungaran 02, located in Ungaran Barat District, Semarang Regency, Central Java, at Jalan MT Haryono No. 16. The study was carried out over six months, from August 2024 to January 2025, covering activities such as preparation, data collection, analysis, report writing, and thesis examination. The research subjects included the school principal, teachers, school committee, and parents of the students. The researcher acted as the main instrument (human instrument), collecting, analyzing, and interpreting the data. According to (Sugiyono, 2022), in qualitative research, the researcher sets the focus, selects informants, collects and analyzes data, and draws conclusions. The researcher's direct presence in the field allowed for a deeper understanding and data validation through direct checking with the research subjects.

There are two types of data sources in this study. Primary data was collected directly by the researcher through in-depth interviews with the principal, teachers, school committee, and parents (Sugiyono, 2020). Secondary data was collected through documents, observations, or other indirect sources such as educational reports, the Annual Work Plan (RKJM), the School Activity Plan (RKT), the School Budget Plan (RKAS), and meeting minutes (Sugiyono, 2019). Three data collection techniques were employed: observation, interviews, and documentation. According to Soewadji (2012), observation was carried out by the researcher observing the research object directly to describe the events observed. Interviews were conducted face-to-face with informants to obtain in-depth information about the phenomena being studied (Moleong, 2018). The documentation method was used to examine related documents such as educational reports, annual work plans, RKJM, and RKAS (Arikunto, 2019)a.

Data analysis in this study refers to the Miles & Huberman model, which consists of three main stages: data reduction, data presentation, and conclusion/verification. Data reduction involves summarizing, selecting key points, and focusing on specific themes and patterns (Sugiyono, 2020). Data presentation was done in the form of narrative descriptions or diagrams to provide a clear overview and facilitate further analysis (Sugiyono, 2020). Conclusion/verification was performed by drawing preliminary conclusions and continuously verifying until credible data was found (Sugiyono, 2020).

To ensure data validity, several validity techniques were employed as described by (Sugiyono, 2020) including credibility, transferability, dependability, and confirmability. Credibility was tested through extended observation, increased perseverance, triangulation, analysis of negative cases, and member checks. Transferability was tested by providing detailed descriptions of the research context and comparing findings with other studies. Dependability was tested by auditing the entire research process. Confirmability was tested to ensure that the research findings are unbiased and can be verified by others. In this study, data validity was tested using triangulation techniques, involving the use of various methods and data sources to check the credibility of the collected data.

FINDINGS AND DISCUSSION

The student enrollment at SD Negeri Ungaran 02 has shown a decline over the last three years, with a reduction of about 9.5%, from 345 students in the 2021/2022 academic year to 312 students in the 2023/2024 academic year. This decline is influenced by various factors such as the high graduation rate, student transfers to other schools, and local demographic factors. Nevertheless, the gender distribution among students remains relatively balanced, with the number of female students remaining stable at around 162 each year. Furthermore, the graduation rate at SD Negeri Ungaran 02 is quite high, with an average graduation rate of 100% over the past three years. However, there has been a slight decrease in the number of students continuing their education to junior high school

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in the 2022/2023 academic year, from 62 students to 59 students in the following year. This indicates that, despite the high graduation rate, external factors such as relocation and personal decisions influence the choice to continue education.

The teaching staff at SD Negeri Ungaran 02 consists of 22 individuals, with 11 of them being civil servant teachers and the remaining as non-permanent teachers. The gender composition of the teaching staff is predominantly female, with 16 female teachers and 6 male teachers. Most of the teaching staff have completed at least a bachelor's degree (S1), and some have pursued further education, such as the school principal who holds a master's degree (S2). However, there are still some educators with educational backgrounds below S1, which poses a challenge to improving the quality of educational services.

The level of preparedness at SD Negeri Ungaran 02 in carrying out educational functions is fairly good, although there are areas that need improvement. In terms of the learning function, both teacher and student motivation is high, the allocation of time for learning is optimal, and the physical and social environment supports the learning process. However, external support for the learning process still needs to be enhanced. On the curriculum side, the school has complete syllabi and curriculum development documents, but further adjustments are needed to align with advancements in science, technology, and societal demands. In personnel management, the adequate number and high competence of teachers are advantages, although there is still a shortage of technical laboratory staff and administrative personnel. The evaluation function is also well-implemented, but the involvement of the community and parents in providing feedback needs to be improved. The financial aspects and school facilities are in decent shape, but the science and language laboratories need improvements due to existing limitations (Munawar, 2017).

The process of identifying the educational report at SD Negeri Ungaran 02 is carried out participatively, involving the principal, teachers, school committee, and parents. The principal and teachers actively read and analyze the educational reports to understand learning achievements and identify challenges. The educational report data is used as a basis for planning more targeted improvement programs. A significant difference between the 2024 and 2023 reports can be seen in indicators such as literacy and numeracy skills, which have improved, as well as a drastic increase in teacher participation in the Merdeka Mengajar Platform. However, aspects of student character, such as cooperation and creativity, have shown a decline. Therefore, the school plans to implement a character-strengthening program to address this decline (Nurhattati, 2021)n.

The use of additional supporting data, such as diagnostic assessment results, parent satisfaction surveys, and teacher performance evaluations, provides a more holistic view of the learning environment at the school. This data helps the school in designing more effective teaching strategies and improving the quality of the learning environment. The principal and teachers emphasize that this data is very significant in developing strategic steps to improve the quality of education at SD Negeri Ungaran 02. The exploration of educational reports involves various stakeholders, including the principal, teachers, school committee, and parents. While parental involvement has not been directly included in the exploration of educational reports, they still contribute through school committee meetings and provide feedback on their children's educational conditions. This demonstrates that collaboration between the school and parents is crucial in improving the quality of education (Simon, 2019).

Data-Based Planning (DBP) in the Context of Education

The implementation of data-based planning (DBP) in education is a crucial step toward improving the quality of learning and school management. According to Schildkamp (2012), the use of data in education not only serves to evaluate school performance but also acts as a tool to formulate more effective and accurate educational policies. At SD Negeri Ungaran 02, data-based planning is implemented by involving all parties, from the principal and teachers to the parents, so that every decision made is accountable and aimed at improving the quality of education (Terry, 2015).

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In line with this, (Ariani, D., & Hadi, 2019)a in the *Journal of Educational Management* state that data-based planning provides an advantage in making more accurate and evidence-based decisions. Through the analysis of available data, such as educational reports, student assessments, and evaluations from various parties, schools can identify areas that need improvement and formulate policies that are more in line with the students' needs and the challenges faced. Thus, the application of DBP not only helps in designing relevant educational programs but also supports improving efficiency and accountability in educational management.

Participation in Data-Based Planning

Participation is a key element in data-based educational planning. (Fullan, 2016) argues that the success of educational planning highly depends on the extent of stakeholder participation in every phase of planning and implementation. At SD Negeri Ungaran 02, the involvement of the principal, teachers, school committee, and parents in the analysis of educational report data is crucial to ensure that all parties share the same understanding of the goals to be achieved. This reflects the importance of collaboration in education, which according to Hargreaves and Shirley, can create synergy between all the elements involved, both at the internal and external levels of the school (Hargreaves, A., & Shirley, 2019).

Through active participation, the school can create a more inclusive and sustainable planning process. Dweck proposed that a growth mindset applied in the classroom can enhance student involvement and improve the overall quality of learning (Dweck, 2016). The application of this principle is not limited to students but extends to teachers and parents, who also participate in analyzing and planning strategic steps based on the data obtained. Parental involvement in this process is key to improving communication and collaboration, which can directly impact the achievement of students' educational goals.

However, despite the important role of parents in data-based education, several studies show that there are still challenges in optimizing parental participation. (Sutrisno, A., & Nurdiana, 2018) in the *Journal of Education and Learning* highlight that one of the main obstacles is parents' limited knowledge in reading and analyzing educational data, such as educational reports. Therefore, it is essential for schools to organize training and socialization efforts that enable parents to understand how to read and interpret educational data.

Data as the Basis for More Accurate Planning

Using data as the basis for educational planning allows schools to conduct more objective evaluations and create more targeted actions. (Miles, M. B., & Huberman, 2020) explain that valid and accurate data can be used to evaluate the programs that have been implemented and identify areas that need improvement. In this study, SD Negeri Ungaran 02 uses educational reports as the primary data to evaluate students' academic and character development. Through the analysis of educational reports, the school can see students' achievements in literacy and numeracy, as well as understand the challenges faced in achieving educational goals.

Kurniawati in the *Journal of Educational Management* adds that data is not only used to measure achievements but also to identify factors affecting learning outcomes (Kurniawati, 2020). Therefore, schools need to consider various external factors that can influence learning, such as students' socio-economic conditions, family support, and the availability of educational resources. By analyzing data comprehensively, schools can design teaching strategies that are more aligned with the real conditions in the field.

One significant finding in this study is the improvement in students' literacy and numeracy skills at SD Negeri Ungaran 02 in the 2023-2024 academic year. According to the educational report data, literacy skills increased from 26.67% to 33.33%, and numeracy skills increased from 76.67% to 80%. This shows that using data based on educational reports has a positive impact on improving the quality of learning at this school. Somantri explains that using data in educational evaluations allows schools to identify achieved results and plan more effective improvements (Somantri, 2014).

However, despite the improvements in literacy and numeracy, there has been a decline in student character indicators, such as cooperation and creativity. This suggests that while data-based planning successfully improves academic skills, student character development requires further attention. (Setiawan, 2019) in the *Journal of Character Education* emphasizes that the development of student character must be an integral part of education, inseparable from academic learning.

Challenges in Implementing DBP

Despite the positive results of implementing data-based planning at SD Negeri Ungaran 02, there are several challenges that need to be addressed. One of the challenges is the limited understanding of educational data by parents. (Mulyasa, 2015) states that while many parents care about their children's education, not all of them have sufficient knowledge to read and interpret educational reports. This results in parents being unable to provide maximum support for their children's development.

Additionally, even though teachers at SD Negeri Ungaran 02 have been actively involved in using data for planning, there are still challenges in maximizing the use of technology in teaching. (Sutrisno, 2020) in the *Journal of Educational Technology* reveals that although technology has been widely used in education, some teachers are not yet fully skilled in using technology to support learning. Therefore, there is a need for greater efforts in providing training and support for teachers to optimize the use of technology in the learning process.

Plans for Character Development Programs

As a solution to the challenges faced, SD Negeri Ungaran 02 needs to develop a more structured and data-driven character development program. Hidayat in the *Journal of Character Education* explains that character development programs for students should involve all stakeholders (Hidayat, 2020).

CONCLUSION

Based on the results of the study, three main conclusions can be drawn regarding the implementation of participatory data-based planning (DBP) at SD Negeri Ungaran 02. First, the process of identifying the educational reports at SD Negeri Ungaran 02 is conducted participatively, involving various stakeholders such as the school principal, teachers, education staff, school committee, and representatives of parents and students. This approach allows the school to gain a more comprehensive understanding of both academic and non-academic conditions. The identification process reveals improvements in student literacy and numeracy achievements. However, challenges remain, such as achievement gaps between classes and limited utilization of technology in learning. Therefore, the school needs to focus more on enhancing technology integration and addressing achievement gaps through targeted, data-driven interventions. With this data-based approach, the school can develop more targeted improvement strategies that align with real needs.

Second, reflection on the educational report at SD Negeri Ungaran 02 is carried out through discussions and workshops involving various stakeholders to understand the factors affecting the school's achievements. Teachers are given the opportunity to evaluate the effectiveness of the teaching strategies implemented, while students and parents contribute by providing feedback on their learning experiences. The results of this reflection identify key challenges, such as gaps in literacy and numeracy skills, low parental involvement in supporting learning at home, and variations in the quality of teaching across classes. This participatory reflection enables the school to formulate more effective improvement steps. Moving forward, ensuring stronger parental involvement and addressing the variation in teaching quality through continuous professional development for teachers should be prioritized.

Third, after conducting identification and reflection, SD Negeri Ungaran 02 develops the Annual Work Plan (RKT) participatively by involving the school principal, teachers, school committee, and representatives of parents and students. This process ensures that the programs

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designed have the support of all stakeholders and are aligned with the needs identified earlier. The development of the RKT includes setting priority programs, such as enhancing teachers' competencies in utilizing technology, strengthening literacy and numeracy programs, and increasing parental involvement in supporting students' learning at home. This participatory approach allows the school to develop more targeted and sustainable strategies for improving the quality of education at SD Negeri Ungaran 02. Moreover, these strategies should also focus on fostering a culture of technology use in teaching and evaluating the long-term impact of these programs.

Overall, the participatory data-based planning process provides SD Negeri Ungaran 02 with an opportunity to refine its educational strategies continuously and address challenges effectively. Further efforts to integrate technology, close achievement gaps, and increase community involvement will be essential in ensuring the sustained improvement of educational outcomes.

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