



The Role of the Nutritious Meal Program (PMB) on Physical Education Learning Participation of Students with Physical Disabilities at SLB Negeri 1 Buleleng

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ABSTRACT

This study aims to analyze the role of the Nutritious Meal Program (PMB) on the participation of students with disabilities in Physical Education, Sports, and Health (PJOK) learning at SLB Negeri 1 Buleleng. This study used a qualitative approach with a case study design. The research informants consisted of the principal, class teachers, and two PJOK teachers selected through purposive sampling. Data were collected through in-depth interviews, observation, and documentation, then analyzed using the Miles, Huberman interactive model. The results showed that PMB played a significant role in improving students' physical readiness, energy, and concentration, thus enabling them to participate in PJOK learning more optimally. In addition, PMB contributed to increased learning participation, characterized by activeness in following instructions, enthusiasm in trying new movements, involvement in group activities, and consistent attendance. The success of the program was also influenced by the support of the principal and teachers, as well as the implementation of adaptive learning methods that are appropriate to students' physical abilities. This study concluded that PMB not only meets students' nutritional needs but also serves as an important strategy in inclusive education, increasing motivation, social engagement, and active participation of students with physical disabilities in PJOK learning.

Keywords: Nutritional Meal Program, Learning Participation, Physical Education, Students with Physical Disabilities, Inclusive Education

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INTRODUCTION

Education is a basic right of every citizen, including those with disabilities (Trisno et al., 2022). In Indonesia, the commitment to fulfilling the right to education for people with disabilities has been regulated in various policies, such as Law Number 08 of (2016) concerning Persons with Disabilities and Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 70 of (2009) concerning Inclusive Education. These policies encourage the provision of equal and fair education for all students, including students

with disabilities, both in public schools and in Special Needs Schools (SLB) (Camuendo, 2016).

Adaptive physical education is an educational process through movement activities to accelerate growth and development, both physically and psychologically (Taufan et al., 2018). Adaptive physical education is a comprehensive service delivery system (Taufan et al., 2018). Children with disabilities have abnormalities/deviations from the average condition of normal children, both physically, mentally, intellectually, socially, and emotionally (Rohima, 2016). Children with disabilities are children who require specific services in education, different from children in general (Fakhiratunnisa et al., 2022).

Students with physical disabilities face unique challenges in participating in the learning process, particularly in subjects that rely on physical activity, such as Physical Education, Sports, and Health (PJOK) (Khusus et al., 2024). Activities in PJOK learning require good motor skills, physical strength, and stamina, while students with physical disabilities often experience limitations in these aspects (Rosmi & Jauhari, 2022). PJOK learning is crucial for students with physical disabilities not only to maintain physical fitness but also to support the development of social skills, self-confidence, and independence (Iman Rubiana et al., n.d.). PJOK serves as a medium for developing self-potential, increasing enthusiasm for life, and providing space for students to express themselves through physical activities appropriate to their conditions (Iman Rubiana et al., n.d.).

A crucial factor influencing student learning participation, particularly in Physical Education (PJOK) subjects, is nutritional intake (Osrita et al., 2023). A balanced diet plays a crucial role in maintaining physical health, increasing energy, endurance, and cognitive function (Osrita et al., 2023). For students with physical disabilities, adequate and appropriate nutrition is even more crucial, given their physical condition, which requires more intensive medical attention and care (Osrita et al., 2023). Poor nutrition can lead to fatigue, weakened muscle function, and even decreased enthusiasm for learning, particularly physical activities such as PJOK (Osrita et al., 2023).

The Nutritional Meal Program (PMB) aims to address the nutritional challenges of children with disabilities. The Nutritional Meal Program (PMB) ensures that each student receives a nutritious and balanced diet every day (Andin et al., 2025). This program is designed

based on balanced nutrition guidelines by nutritionists and tailored to each student's individual health needs (Andin et al., 2025). Providing nutritious food (PMB) is expected to help students maintain their physical condition and improve their readiness to participate in all learning activities at school, including physical education (PJOK) (Andin et al., 2025). The Nutritious Meal Program (PMB) is not only a food provision program, but also a systemic intervention that can influence students' overall learning readiness (Andin et al., 2025). The relationship between PMB and participation in PJOK should be seen as a complex and mutually influential relationship, where nutritional factors interact with learning motivation, self-perception, environmental support, and the teaching methods used by teachers (Osrita et al., 2023).

Student learning participation can be measured not only by attendance or final grades, but also by how actively, enthusiastically, and confidently students engage in the learning process (Rahma, n.d.). A qualitative approach is a relevant option to further explore how students perceive the impact of PMB on their physical condition, how teachers perceive changes in student behavior in physical education classes, and how parents interpret their children's development after participating in PMB (Iman Rubiana et al., n.d.). The location of SLB Negeri 1 Buleleng, SLB Negeri 1 Buleleng, provides an important dimension in understanding how PMB implementation is taking place. As one of the only public SLBs in the region, this school serves as a reference for implementing inclusive education programs. SLB Negeri 1 Buleleng has an organized PMB program structure, collaborates with the Health Office and nutrition experts, and has a robust monitoring system (Rahma, n.d.). This study aims to provide an in-depth description of how the Nutritious Meal Program (PMB) influences the physical education (PJOK) learning participation of students with physical disabilities at SLB Negeri 1 Buleleng (Osrita et al., 2023).

METHOD

Research design

This research employed a qualitative approach with a case study design. The qualitative approach was chosen because the study aimed to gain a deeper understanding of the role of the Nutritious Meal Program (PMB) on the participation of students with physical disabilities in physical education (PJOK) learning, based on the experiences, perspectives, and interpretations of teachers. The case study design was used because the research focused on a single location, SLB Negeri 1 Buleleng, allowing the researcher to obtain a comprehensive and contextual

overview of PMB implementation and its impact on physical education learning, particularly for students with physical disabilities.

Research Location and Time

We conducted the research at the Buleleng Special Needs School (SLB N) in Buleleng Regency, Bali. This special need school serves students with various disabilities (Amatullah et al., 2025). We chose this location because it had an environment relevant to the research focus (Putri, 2019). The research took place in March 2024.

Research Type

This qualitative research approach allowed us to explore data in a natural and in-depth manner through direct interactions with informants (Indrawan et al., 2025). The focus of the research was on the meanings given by adaptive physical education teachers and other informants regarding their experiences regarding the role of the nutritious meal program (PMB) on the physical education learning participation of students with physical disabilities at SLB Negeri 1 Buleleng (Indrawan et al., 2025).

Technique sampling

The informants in this study were the principal, class teachers, and adaptive physical education teachers who teach at SLB Negeri 1 Buleleng (Indrawan et al., 2025). We selected teachers who were directly involved in the implementation of the nutritious meal program and the activities of students with physical disabilities in classroom learning and physical education learning (Fitriatun, 2022). These included one principal, one class teacher, and two adaptive physical education teachers who had implemented and participated in the nutritious meal program (PMB) at SLB Negeri 1 Buleleng.

Data Collection Techniques

The researcher used data collection techniques in this study through three main techniques, namely in-depth interviews conducted in a semi-structured manner to explore teachers' perceptions in detail, non-participatory observation, conducted to observe the process of the nutritious meal program and its influence on physical education and sports learning, especially for students with physical disabilities, and documentation to strengthen existing data.

Data Analysis Techniques

Data were analyzed using the interactive model by Miles and Huberman (Adam et al., 2024), which includes three stages: data reduction – the process of selecting, simplifying, and transforming raw data into a more structured form; data presentation – organizing data into a narrative or visual format to facilitate interpretation; and conclusion drawing – the final interpretation based on patterns, relationships, and themes emerging from the data.

RESULTS AND DISCUSSION

Result

The principal's perspective

The principal stated that PMB is conducted routinely every day before the start of core learning. The goal is to ensure students receive adequate nutrition so they can actively participate in all school activities, including Physical Education (PJOK). Several findings from the principal's perspective include: (1) Students who regularly participate in PMB appear more energetic and less tired; (2) Student attendance is more consistent; (3) Participation in PJOK learning increases, particularly in light physical activities and adaptive games. The principal emphasized that the success of PMB depends not only on the provision of food, but also on the support of teachers and school staff who monitor student consumption.

The classroom teacher's perspective

The classroom teacher sees PMB as playing a role in improving student concentration during learning. In addition, the classroom teacher noted changes in student motivation, including: (1) Students who were previously passive began to show enthusiasm; (2) Social interaction with peers increased; (3) Students were better able to follow teacher instructions without feeling tired quickly. The classroom teacher also stated that PMB helps students better prepare for physically demanding PJOK learning, enabling teachers to implement adaptive learning strategies more effectively.

Physical education teachers' perspectives

Two physical education teachers provided more detailed information regarding the effects of PMB on physical education: (1) Physical Readiness: Students who received PMB were better able to perform warm-ups and core exercises. They were also more resilient to physical fatigue, which is a key factor in participating in physical education activities; (2) Activeness and

Enthusiasm: Students began to dare to try new movements, participate in adaptive games, and engage in group activities. This increased activity demonstrates a direct link between nutritional needs and physical readiness in physical education; (3) Consistency of Participation: Student attendance in physical education lessons increased. Observations showed that students who received PMB were less likely to leave activities due to fatigue or an inability to follow the movements.

Discussion

The Relationship between PMB and Students' Physical Condition

Research results show that nutritional support through PMB directly impacts the physical condition of students with disabilities. Increased energy and endurance enable students to actively participate in physical education (PJOK) learning. This aligns with Maslow's theory of physiological needs as the basis for individual readiness to learn (Maslow, 1943). Optimal physical condition also enables PJOK teachers to implement a wider variety of adaptive learning methods, as students have the stamina to participate in a series of activities.

Impact of PMB on Learning Participation

Student learning participation is measured by actively following instructions, involvement in activities, courage to try new movements, and consistent attendance. Nutritional support has been shown to improve all of these indicators, particularly in the context of students with physical disabilities who require greater energy to participate in physical activities. Creswell (2014) states that understanding participants' experiences is key to explaining social phenomena. In this study, teachers' experiences demonstrated changes in student behavior after receiving PMB: they were more active, energetic, and enthusiastic about participating in PJOK.

School Institutional Perspective

The principal emphasized the importance of institutional support, including monitoring food consumption and providing supporting facilities. This indicates that the success of MMB depends not only on nutritional intake but also on school environmental factors. Sugiyono (2019) emphasized that a conducive educational environment increases the effectiveness of nutrition program interventions on learning outcomes.

Synergy Between Classroom Teachers and Physical Education Teachers

Classroom teachers play a role in monitoring overall student readiness, while physical education teachers focus on physical engagement. This combination of roles creates a synergy

that increases student learning participation. Moleong (2017) emphasized that teacher support is crucial in inclusive education research, as teachers are able to adapt learning strategies to individual student needs.

Limiting Factors

Although MMB has positive effects, student learning participation is not solely influenced by nutrition. Internal factors such as the physical condition, motor skills, and health of each student still determine the program's effectiveness. Furthermore, limited adaptive physical education facilities can limit students' physical activity. Therefore, PMB should be integrated with adaptive and personalized learning methods.

CONCLUSION

Based on the results of research on the role of the Nutritious Meal Program (PMB) on the participation of students with physical disabilities in learning physical education at SLB Negeri 1 Buleleng, several main conclusions can be drawn: (1) PMB Improves Students' Physical Readiness and Energy, adequate nutritional intake from PMB helps students with physical disabilities gain better energy, endurance, and concentration. This allows them to participate in PJOK learning more optimally and reduces fatigue during physical activity; (2) Increased Learning Participation, students who regularly participate in PMB show increased learning participation which includes: activeness in following teacher instructions, courage to try new movements, enthusiasm in group activities, and consistent attendance; (3) The Role of Teachers and Principals is Very Important, the success of PMB does not only depend on the provision of nutritious food, but also on the synergy between the principal, class teachers, and PJOK teachers in: (1) Monitoring the implementation of PMB; (2) Adapting learning methods to students' abilities; (3) Providing consistent motivation and support; (4) Implications of Inclusive Education PMB not only meets students' physiological needs, but is also an important strategy to support inclusive education. This program can increase motivation, social engagement, and active participation of students with physical disabilities in PJOK learning. Overall, the Nutritious Meal Program has proven effective in supporting the participation of PJOK learning for students with physical disabilities, while strengthening students' physical readiness, motivation, and social interaction in the context of inclusive education.

ACKNOWLEDGMENT

The author expresses his gratitude to God Almighty for His grace, blessings, and guidance, enabling the successful completion of this research, entitled "The Role of the

Nutritious Meal Program (PMB) on Physical Education and Health Learning Participation of Students with Physical Disabilities at SLB Negeri 1 Buleleng." The author acknowledges that this research would not have been possible without the assistance, guidance, and support of various parties. Therefore, the author would like to express his deepest gratitude to: The Principal of SLB Negeri 1 Buleleng, who granted research permission and provided facilities and support that were invaluable throughout the research process. The classroom teachers and the Physical Education and Health teachers, who served as research informants, willingly took the time to share their experiences and provide in-depth information that served as the core of this research's qualitative data. The student participants in the research, who supported the smooth running of observations and learning activities throughout the research. The supervising lecturer, who patiently guided, provided input, corrections, and motivation, enabling the author to compile this research systematically and scientifically.

The author acknowledges that this research is far from perfect. Constructive criticism and suggestions are highly appreciated for the improvement of this research in the future. Hopefully, this research will be beneficial for the development of educational science, particularly in increasing understanding of the role of the Nutritious Meal Program in supporting the learning participation of students with physical disabilities.

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