Obstacles in Executing the Pancasila Learner Profile for Hearing-Impaired Students in Special Education School

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Abstract: This study examines the obstacles encountered by educators in executing the Pancasila Learner Profile (P5) using project-based learning (PBL) for deaf students at Sekolah Luar Biasa (SLB) in Indonesia. Through interviews and observations at seven SLB institutions, we identified several substantial barriers, including language and communication obstacles, insufficient technological support, inadequate teacher training, varying educational levels within the classroom, and inconsistent parental and community engagement. The findings indicated that deaf children frequently had restricted vocabulary and language proficiency, which impeded their capacity to comprehend instructions, articulate ideas, and fully participate in the PBL activities central to the P5 framework. The lack of suitable resources intensifies these difficulties, hindering the efficacy of visual aids and assistive equipment crucial for deaf pupils. Teacher preparedness is essential, as numerous educators lack specific training in deaf education methodologies, including competency in sign language and comprehensive communication strategies. This disparity obstructs their capacity to modify curriculum and pedagogical approaches to address the specific requirements of deaf students.Notwithstanding these obstacles, this research underscores the beneficial effects of adaptive teaching strategies, collaborative initiatives among educators, and heightened parental engagement. When educators employed practical, hands-on activities and tailored their methods to students' requirements, there was a significant enhancement in student engagement, social interaction, and skill acquisition. The study reveals that successfully implementing the Pancasila Learner Profile for deaf children requires a comprehensive approach to communication, improved teacher training, sufficient resource allocation, curriculum modifications, and the crucial re-establishment of partnerships with parents and communities.

Keywords: Pancasila Learner Profile, Deaf Education, Project-Based Learning, Language Barriers, Teacher Training, Assistive Technology, Parental Involvement

INTRODUCTION

Implementing the Pancasila Learner Profile seeks to instill fundamental qualities, like cooperation, independence, and innovation, among Indonesian pupils. Nonetheless, deaf children in Sekolah Luar Biasa (SLB) encounter distinct problems in executing this curriculum. The obstacles stem from linguistic challenges, the necessity for tailored educational resources, and dependence on visual aids essential for efficient knowledge assimilation (Gilbertson & Ferre, 2008).

Implementing the Pancasila Learner Profile (P5) aims to instill fundamental characteristics such as teamwork, independence, and creativity among Indonesian students. Nonetheless, for deaf students in Sekolah Luar Biasa (SLB), implementing this project-based curriculum presents distinct problems. The obstacles stem from various factors, including language barriers, the need for adapted materials, and the reliance on visual aids, all crucial for deaf and hard-of-hearing students to effectively understand and participate in the project-based curriculum. Moreover, fostering collaboration and involvement in P5 activities necessitates meticulous preparation and adaptation by educators, who frequently encounter limitations regarding resources and training.

Prior studies have identified obstacles in special education worldwide, highlighting the intricacies of attaining special education for students with hearing impairments. Bamu et al. (2017) underscored the necessity for structural modifications and support services, stressing the significance of facilities tailored for students with hearing impairments. Research by Agyire-Tettey et al. (2017) indicates that the availability of suitable resources and instructional materials profoundly influences the academic performance of students with hearing loss. Moreover, Gilbertson & Ferre (2008) emphasized the importance of personalized evaluation and intervention for these children, revealing that conventional assessment instruments often fail to meet the needs

of hearing-loss students, negatively affecting their academic perfucking stupid pakistan kenyamance. A primary obstacle is the absence of educational resources tailored to the requirements of deaf students. Vocabulary constraints and reading and writing challenges impede their ability to participate effectively in project-based learning activities (Agyire-Tettey et al., 2017). Interviews at SLB Negeri 9 Jakarta indicated substantial obstacles stemming from students' restricted vocabulary, hindering the implementation of the Pancasila Learner Profile without tailored support mechanisms.

Technological obstacles impede the successful execution of the curriculum. The transition to digital education necessitates access to assistive technologies and resources that are sometimes lacking or insufficient for deaf students. The need for accommodations such as closed captioning and sign language interpreters is crucial, yet often remains unfulfilled due to resource constraints (Schafer et al., 2021). Moreover, teacher readiness becomes a substantial concern. Educators frequently lack the requisite skills and resources to instruct deaf children proficiently, particularly within the context of the Pancasila Learner Profile. This disparity underscores the necessity for extensive teacher training initiatives and cooperative assistance from parents and school administration (Luckner, J. L., & Dorn, B., 2017).

Addressing these obstacles necessitates a comprehensive strategy encompassing the creation of specialized educational resources, enhanced technology assistance, tailored evaluation techniques, and rigorous instructor training. Implementing these measures can facilitate a more optimal, accessible, and effective Pancasila learner profile experience for students with hearing impairments in Indonesia. The challenges in executing the Pancasila Learner Profile (P5) for hearing-impaired pupils in special schools (SLB) are varied and intricate. A primary issue is restricted language and vocabulary development. Deaf students frequently possess a restricted vocabulary, which impairs their capacity to communicate, comprehend, and articulate concepts in project-based learning endeavors. Interviews at SLB Negeri 9 Jakarta indicated that deaf students frequently encounter difficulties actively engaging in P5 activities without specific modifications to educational materials and methodologies. This limitation directly affects the efficacy of P5 implementation, which seeks to cultivate qualities such as collaboration, innovation, and autonomy among pupils. A further concern is the deficiency of suitable technological assistance. A multitude of deaf students in SLB encounter difficulties in obtaining the technology required for engagement in educational activities. Numerous deaf pupils continue to experience challenges and financial barriers in using hearing aids, and many educators have yet to fully grasp the total communication methodology for instructing deaf kids. Technologies like closed captioning and sign language interpreters are inaccessible or insufficient, restricting their utility in project-based endeavors. The COVID-19 epidemic has exacerbated this predicament, accelerating the transition to digital learning and revealing the inadequacies of technology infrastructure for deaf students (Schafer et al., 2021). The absence of supporting technology hinders students' comprehension of the topic and their full participation in P5 activities.

Moreover, the preparedness of the teaching personnel constitutes a considerable impediment to the implementation of P5 for deaf children. Many educators in SLB lack sufficient training in implementing a project-based curriculum for children with hearing impairments. Educators encounter challenges establishing an effective and adaptive learning environment without adequate training. Educators prepared to assist deaf pupils require comprehensive knowledge of alternative communication techniques, including sign language and complete communication strategies. These constraints underscore the necessity for continuous training initiatives and administrative assistance to empower educators to proficiently execute P5 for deaf children in Indonesia (Joy & Gundmi, 2024).

This study identifies and analyzes the obstacles encountered in implementing the Pancasila Learner Profile (P5) for deaf students in special schools (SLB). This study aims to investigate the barriers that impede the successful execution of the project-based curriculum, such as linguistic hurdles, technological accessibility, and the preparedness of educators to address the requirements of students with hearing impairments. This research seeks to provide ways that enhance the accessibility and efficacy of P5 implementation for deaf students, consequently fostering a collaborative and impactful learning environment through an understanding of these limits.

This study seeks to explore critical concerns regarding the obstacles to applying the Pancasila Learner Profile (P5) for deaf students in special schools (SLB). It aims to address the question, "What are the primary challenges encountered in the implementation of the Pancasila Learner Profile (P5) for deaf students in special education institutions?" This inquiry seeks to ascertain the challenges in executing P5 for deaf children, encompassing curriculum-related issues and the constraints of pertinent educational facilities.

Additionally, it examines the effects of restricted language and vocabulary development on deaf students' engagement in project-based P5 activities.

The second question was: "In what ways do language and vocabulary acquisition limitations impact the participation of deaf students in P5 project-based activities?" This research seeks to elucidate the effects of language constraints on deaf pupils' communication, comprehension of instructions, and participation in collaborative activities within P5.

The study additionally examined external factors, including technical support and the preparedness of the teaching team. "How significantly do technological support and teacher preparedness influence the efficacy of P5 implementation for deaf students?" This research aims to determine the influence of technology and teacher competence on establishing a collaborative learning environment that aligns with the objectives of P5. This knowledge enables the research to elucidate the necessary measures to enhance the efficacy and sustainability of P5 implementation for deaf pupils in special schools.

METHOD

This research employs a qualitative case study methodology to thoroughly investigate the obstacles encountered in applying the Pancasila Student Profile (P5) via Project-Based Learning (PBL) for deaf students in special schools (SLB). We deem this methodology suitable because it allows us to comprehend intricate issues comprehensively by examining participants' experiences and viewpoints within their natural context (Creswell, 2013).

This method, which engaged four SLBs in Jakarta and utilized direct observation and comprehensive interviews, effectively identified the challenges faced by educators in executing P5 for children with hearing impairments. We used purposive sampling to select 12 teachers with experience in PBL and working with deaf students, ensuring that the collected data was relevant and informative, in line with the research objectives (Patton, 2015).

This sample strategy is crucial for this study as it targets persons with profound knowledge of the subject matter. The data-gathering strategy included classroom observations and semi-structured interviews, enhancing the data by observing direct interactions and documenting specifics of the P5 learning process. The implementation of observation checklists facilitated the systematic documentation of obstacles to communication, the use of visual aids, and student involvement (Merriam & Tisdell, 2016). Semi-structured interviews lasting around 60 minutes enhanced the comprehension of teachers' experiences confronting and surmounting problems, subsequently examined by Braun and Clarke's (2006) theme methodology. Data triangulation from several sources, including direct observation and interviews, lends high validity and credibility to this research approach. The

triangulation technique guaranteed the precision of the acquired data, facilitated comprehensive research findings, and bolstered the pragmatic recommendations for the more successful and special education execution of P5 in SLB for deaf students.

This study employed qualitative case study methods to gather comprehensive and detailed information about teachers' specific challenges when implementing the Pancasila Learner Profile (P5) with deaf students. The researcher went into the classroom and watched directly to see how things worked during the implementation of P5. They watched how deaf students responded to the Project-Based Learning (PBL) materials and the problems with communication and understanding. Comprehensive interviews supplemented the observations, enabling teachers to elaborate on the challenges they encountered and how they adapted their teaching methods to meet the needs of deaf students. This methodology facilitated the development of a comprehensive overview of P5 practices in the domain and assisted researchers in comprehending the diverse requirements of students with hearing impairments across various educational levels.

Applying Braun and Clarke's (2006) thematic approach to data analysis enhanced the recognition of patterns and themes pertinent to the obstacles and solutions in P5 implementation. This thematic approach offered a systematic framework for comprehending and categorizing the collected data, enabling the unambiguous identification of major topics concerning hurdles, modifications in teaching methods, and the importance of collaboration in P5 learning.

Moreover, applying triangulation through integrating data from several sources, including observations and interviews, enhances the validity of the study's findings. By employing triangulation, the researcher can authenticate and reinforce the research findings, thereby improving the precision of the recommendations. These recommendations can then be effectively implemented to enhance the efficacy of P5 execution in SLB for deaf pupils. Seven special schools participated in this study, including six in Jakarta and one in Bogor. The special schools examined were SLB N 1 Jakarta, SLB N 2 Jakarta, SLB N 3 Jakarta, SLB N 5 Jakarta, SLB N 7 Jakarta, SLB N 9 Jakarta, and SLB N Bogor.

This study employed observational data, comprehensive interviews, and a systematic checklist to augment the rigor of classroom observations. This allowed researchers to document specific instances concerning communication barriers, the utilization of assistive technologies, and student participation in real time. This checklist facilitated uniform documentation across various sites, guaranteeing that the data gathered was comparable and complete among the seven special schools participating in the study. Utilizing

the checklist, researchers systematically documented intricate aspects of each classroom's surroundings, enhancing the qualitative data and establishing a solid basis for theme analysis.

Additionally, to enhance comprehension of the context and tailor recommendations to diverse school environments, this study examined elements specific to each SLB's operational framework. The investigation considered variances in teacher-to-student ratios, access to specialized resources, and the availability of support staff among the observed SLBs. The contextual considerations significantly influenced the recommendations customized for each institution. This focus on context enhances the study's external validity and guarantees that the recommendations for P5 implementation via Project-Based Learning (PBL) are feasible and applicable across various SLB situations in Indonesia.

RESULTS AND DISCUSSION

Result

This study identified that the execution of the Pancasila Learner Profile (P5) via Project-Based Learning (PBL) for deaf students in Sekolah Luar Biasa (SLB) encounters numerous hurdles, particularly concerning communication obstacles and restricted language development. During interviews at SLB Negeri 7 Jakarta, educators indicated that a significant challenge is the restricted vocabulary of deaf students, hindering their full participation in project-based activities without extensive support. Using sign language and visual aids is substantial; nonetheless, it remains insufficient to close the communication gap.

Besides communication hurdles, another difficulty is the restricted utilization of technology essential for supporting PBL. Educators at SLB Negeri 9 Jakarta reported that resources and equipment, including hearing aids and digital media for visual communication, are frequently inadequate or inaccessible for deaf pupils. During P5 implementation, educators had to adapt by utilizing essential elements, such as images or tangible things, to facilitate students ' comprehension of more abstract topics, including entrepreneurship and local culture.

The capacity of educators to create adaptive teaching strategies is a crucial element in addressing the issues of P5 implementation. The varied proficiency levels of pupils from elementary to high school, integrated within a single class, present challenges for SLB Negeri 1 Bogor City educators in developing modules appropriate for deaf students. Educators must modify instructional strategies and resources, offering simplified work for primary children while assigning greater responsibilities to high school students in P5 activities, such as conceptualizing and executing

modest entrepreneurial initiatives.

Collaboration among teachers and family engagement emerged as significant solutions for surmounting obstacles to P5 implementation. At SLB Negeri 5 Jakarta, educators interact with parents possessing specialized knowledge, such as in ice kul-kul entrepreneurship, to offer children experiential learning opportunities through practical activities. Furthermore, parents participate as resource individuals who assist students during activities like bazaars or market days, enabling kids to engage in direct selling within a supportive context.

Reflection and evaluation are crucial for the effective implementation of P5. Following each exercise, educators at SLB Negeri 9 Jakarta perform a comprehensive assessment with the students, inquiring about the obstacles encountered and deliberating on potential enhancements. This reflective methodology enables educators to modify the instructional strategy in subsequent sessions, use visual aids, or implement novel communication techniques to enhance students' learning efficacy.

This research indicates that implementing P5 for deaf pupils necessitates a comprehensive and flexible strategy supported entirely by the school, educators, and parents. Linguistic constraints and technological deficiencies pose obstacles, and we must overcome the heterogeneity of students' capabilities through cooperation and continuous improvement of pedagogical approaches. The results of this study indicate that measures, including integrating visual media, developing specific modules, and involving the community in P5 activities, can enhance the participation and communication abilities of deaf students in SLB. Data gathered from seven Sekolah Luar Biasa (SLB) in Jakarta and Bogor indicates significant variability in the enrollment of deaf students, with class sizes ranging from 10 to 40 individuals. At SLB Negeri 9 Jakarta, there are around 40 deaf pupils distributed across several educational levels: 27 in elementary school, 5 in junior high school, and 8 in senior high school. Utilizing the Pancasila Learner Profile (P5) becomes challenging due to varying class sizes and educational levels, as distinct stages of development necessitate a tailored approach in Project-Based Learning (PBL) activities to guarantee student engagement and extensive learning.

Implementing the Pancasila Learner Profile for deaf children has yielded notable enhancements in specific skill domains, especially social interaction, confidence, and cooperation. Producing and vending goods in the marketplace (e.g., handicrafts, snacks) has enhanced students' confidence in social interactions and practical skills, aligning with P5's objective of promoting independence and entrepreneurship. Nevertheless, certain students, particularly those with restricted vocabulary and language proficiency, persist

in encountering difficulties comprehending project requirements and instructions, impacting their capacity to execute activities autonomously.

Despite these positive advancements, significant challenges remain, particularly in language acquisition and vocabulary enhancement. Numerous deaf kids encounter difficulties with language, impeding their capacity to participate in discussions, adhere to directions, and articulate thoughts during P5 activities. Educators at SLB Negeri 1 Bogor indicate that pupils frequently require supplementary visual aids and live demonstrations to comprehensively grasp ideas, while traditional textual instructions may be inadequate. This dependence on visual aids, although beneficial, may impede the learning process and hinder teachers from addressing all the planned content within the project timeline.

The analysis indicates that technology support and teacher preparedness are crucial factors influencing the effectiveness of P5 implementation. Restricted availability of assistive technology, including assistive listening devices, writing aids, and sign language interpreters, remains a prevalent issue among SLBs. Furthermore, numerous educators have not undergone sufficient training in maternal-reflective techniques and comprehensive communication strategies for deaf children, hindering their capacity to effectively execute P5 activities aimed at enhancing the language and communication skills of deaf learners. To address these challenges, research in technology and specialized teacher training programs is essential, fostering a collaborative environment that accommodates the learning needs of deaf students. Enhancing sound and rhythm perception communication, along with developing comprehensive communication skills in both oral and sign languages, is fundamental to the learning capabilities of deaf students. Educational settings utilize SIBI (Indonesian Sign Language System) as their sign language. The Total Listening approach is crucial for enhancing the academic experience and achieving the objectives of the Pancasila Learner Profile for students with hearing impairments.

Obstacles in Executing the Pancasila Learner Profile (P5) for Hearing-Impaired Students in Special Education Institutions (SLB). The execution of Profil Pelajar Pancasila (P5) for deaf students in Sekolah Luar Biasa (SLB) encounters significant problems with demands in project-based learning. The primary concern is language and communication difficulties. Many deaf pupils possess a restricted vocabulary, hindering their ability to comprehend and follow instructions presented in written or verbal formats. The lack of instructional resources tailored to individual needs, like visual aids or sign language instructions, exacerbates this. Educators frequently resort to improvisation through body language, images, and tangible items to elucidate intricate topics; nevertheless, this method is ineffective and time-consuming.

The second obstacle is the constraint of assistive technology, which is essential for the education of deaf pupils. Assistance equipment, such as hearing aids, closed captioning tools, or visual communication instruments, is frequently inaccessible or insufficient. Furthermore, during the COVID-19 pandemic, some schools transitioned to online learning, but the lack of adequate infrastructure and resources hinders deaf students' access to educational materials. Consequently, due to these technological constraints, numerous students encounter challenges properly participating in lectures and engaging in project-based P5 activities. The absence of specialized training for educators constitutes a barrier to P5 adoption. Many educators in SLB lack sufficient training and proficiency in complete communication strategies, encompassing sign language, visual cues, and other suitable alternative communication methods for deaf pupils. This constraint frequently challenges educators to create and execute inclusive and prosperous P5 activities for children with hearing impairments. The absence of collaboration between educators and support personnel, such as therapists or sign language specialists, intensifies these difficulties.

Ultimately, difficulties in engaging and collaborating with parents and the community adversely affect the success of P5. Deaf kids require supplementary assistance beyond the academic setting to enhance the communication and social skills gained throughout P5. Nonetheless, parental involvement and community assistance remain constrained in certain SLBs due to insufficient comprehension or challenges in allocating the requisite time and resources. Parental collaboration in facilitating the execution of P5, including aiding students in home-based buying and selling activities or art projects, can enhance learning results; nevertheless, this potential remains largely unexploited in most SLBs.

These obstacles underscore the necessity for a cohesive strategy, including educational institutions and corporations, to develop project-based learning initiatives for deaf students, enhancing their independence and aligning with their specific needs. This study seeks to highlight the challenges encountered in implementing the Pancasila Learner Profile (P5) via Project-Based Learning (PBL) for deaf students in Sekolah Luar Biasa (SLB). We gathered data through observation and semi-structured interviews with twelve educators from seven special education schools in Jakarta and Bogor. The thematic study pinpointed several noteworthy challenges, as detailed below.

1) Barriers to language and communication.

Teachers highlighted restricted language and vocabulary development among deaf pupils as the primary difficulty. Educators indicated that students

struggle to comprehend instructions and express their thoughts during project-based learning activities. At SLB Negeri 9 Jakarta, educators saw that students' restricted vocabulary impeded their effective participation. "Numerous students possess a restricted comprehension of specific vocabulary, hindering their ability to adhere to project guidelines without continual assistance." (Teacher A, SLB Negeri 9 Jakarta). This constraint necessitated the extensive implementation of the Total Communication approach to improve comprehension. However, despite this support, communication deficiencies persisted, hindering the depth of student involvement in P5 activities.

2) Restricted Technological Assistance.

A notable obstacle is the lack of suitable technological resources. Numerous educational institutions lack sufficient assistive technologies, including assistive listening devices, closed captioning apparatus, and digital visual aids. An educator at SLB Negeri 7 Jakarta made the following point: ""Due to insufficient technological resources, we must rely on fundamental materials, such as images or tangible objects, to facilitate our instruction."This limits the variety of projects we can undertake". (Teacher B, SLB Negeri 7 Jakarta). The shift to digital learning platforms during the COVID-19 pandemic intensified these issues, as numerous students struggled to access online resources efficiently.

3) Educator preparedness and instruction.

This study revealed that numerous educators perceived themselves as inadequately equipped to address the distinct requirements of deaf pupils within the P5 framework. Confident educators lack specific training in sign language and alternative communication techniques. A faculty member from SLB Negeri 1 Bogor made the following statement:

"We lack sufficient training on adapting the P5 curriculum for our deaf students, making it challenging to develop modules that accommodate their varying levels of comprehension". (Teacher C, SLB Negeri 1 Bogor). The training deficiency impairs teachers ' capacity to develop and execute practical PBL activities aligned with Pancasila values.

4) Diverse Class Sizes and Educational Attainment.

Issues arise due to class size disparity and differing educational levels within the same class. SLB Negeri 9 Jakarta accommodates around 40 deaf students across elementary, junior high, and high school levels. Educators encountered challenges in tailoring PBL programs to accommodate the varied requirements of all pupils. "Balancing varying learning levels is challenging. We must adapt tasks for younger students while assigning more intricate responsibilities to older students, all within the same project". (Teacher D, SLB Negeri 9 Jakarta)This variety necessitates considerable work in planning and resource allocation to guarantee that all kids benefit from P5 implementation.

5) Adaptive pedagogical approaches.

Educators frequently must innovate and modify their instructional strategies to surmount these obstacles. At SLB Negeri 5 Jakarta, educators incorporate essential resources and everyday contexts to facilitate comprehension:

"We utilize commonplace items and involve students in experiential activities, such as producing and selling ice kul-kul, to impart entrepreneurial skills. This pragmatic method enhances their comprehension of the concepts". (Teacher E, SLB Negeri 5 Jakarta) Nonetheless, these adjustments are labor-intensive and necessitate supplementary resources, which are not consistently accessible.

6) Parental and Community Engagement.

This study underscores the need for partnerships with parents and communities to enhance P5 implementation. Educators who engage parents observe improved outcomes in student participation and skill enhancement. SLB Negeri 5 Jakarta provides an illustration.

"We involve parents with expertise in specific domains to assist with projects. Their involvement significantly enhances students' enthusiasm and comprehension". (Teacher F, SLB Negeri 5 Jakarta) Despite these achievements, several schools experience inadequate parental involvement due to various constraints, which diminishes the efficacy of P5 programs.

7) Student involvement and competency advancement.

Observations indicated that pupils improved social interaction, confidence, and cooperation upon overcoming barriers. Engaging in product creation and sales activities enhanced their practical abilities and corresponded with P5 objectives. However, students with more severe linguistic impairments continued to face challenges. "Certain students have achieved considerable advancement, while others continue to grapple with comprehending the project requirements, hindering their capacity for independent work". (Teacher G, SLB Negeri 7 Jakarta).

8) The necessity of reflective practice.

Educators acknowledged the significance of reflection and assessment in enhancing the execution of P5. At SLB Negeri 9 Jakarta, evaluations are undertaken

routinely: "Following each project, we evaluate the successes and shortcomings with the students. This facilitates the refinement of our methodology and enhances subsequent activities". (Teacher H, SLB Negeri 9 Jakarta).Such practices enable educators to enhance their techniques, albeit necessitating more effort and dedication.

Discussion

This study's findings underscore considerable obstacles in executing the Pancasila Learner Profile (P5) via Project-Based Learning (PBL) for deaf students in special schools (SLB). The principal challenges cited encompass language and communication hurdles, inadequate technological support, insufficient teacher preparation, various classroom requirements, and inconsistent degrees of parental engagement. These challenges align with issues documented in the global literature concerning special education for students with hearing impairments.

Barriers to language and communication

Language acquisition is a significant issue for deaf adolescents, directly influencing their academic achievement and social integration. The restricted vocabulary and language abilities noted among students in this study correspond with other research suggesting that deaf kids frequently have difficulties achieving language competency due to diminished access to auditory information (Marschark & Spencer, 2016). This constraint impedes their capacity to understand instructions and participate effectively in PBL tasks, which depend significantly on communication and collaboration.

Research has underscored the significance of employing sign language and visual aids to improve comprehension among deaf children (Mayer & Leigh, 2010). Nonetheless, despite these supports, the findings indicate that communication barriers endure. This highlights the necessity for more effective tactics, including bilingual-bicultural methods that integrate both sign language and written/spoken language to enhance comprehension (Golos & Moses, 2013).

Restricted Technological Assistance

The lack of suitable technological resources in SLBs obstructs the successful execution of P5. Assistive technology, including hearing aids, captioning services, and interactive visual tools, is crucial for improving educational experiences for deaf students (Luckner & Bowen, 2010). The deficiency of these materials, as indicated by educators in this study, constrains the breadth and efficacy of PBL activities. The shift to digital education during the COVID-19 pandemic intensified these difficulties. Globally, deaf students face similar challenges due to limited access to online learning platforms and assistive technologies (Pellicano et al., 2020). This scenario underscores the digital divide impacting children with disabilities and the necessity for school regulations that guarantee equitable access to technology.

Instructor readiness and instructions

The inadequate training of instructors in specialized educational strategies for deaf pupils has surfaced as a significant obstacle. Educators reported a deficiency in confidence regarding the adaptation of the P5 curriculum to address their children's specific requirements. This finding aligns with international research highlighting the essential importance of teacher training in special education (Guo et al., 2014).

Professional development programs emphasizing deaf education, sign language fluency, and inclusive educational methods are crucial. Studies demonstrate that properly prepared educators may more efficiently execute courses that address the varied requirements of deaf pupils (Knoors & Marschark, 2014). Consequently, investment in teacher education is essential for successfully implementing P5.

The classroom embraces diversity and employs adaptive instructional strategies

The variation in educational levels within individual classrooms presents difficulties in efficiently implementing project-based learning (PBL). Educators must manage diverse levels of language competency and cognitive development, which necessitate flexible instructional strategies. Tomlinson (2014) proposes differentiated instruction as an effective method to accommodate this variety, enabling educators to customize learning activities according to individual student requirements.

In deaf education, integrating visual learning tactics and tactile exercises can improve engagement and comprehension (Guardino & Cannon, 2015). The adaptive strategies educators utilize in this study, including incorporating real-world contexts and hands-on projects, conform to exemplary practices in special education.

Engagement of Parents and the Community

Parental and community involvement is crucial in helping the education of deaf students. This study's beneficial effects linked to parental participation are corroborated by literature demonstrating that family interaction enhances academic and social results for adolescents with hearing impairments (Calderon & Greenberg, 2011).

Inconsistent parental involvement underscores schools' need for more robust collaborations with

families. Strategies may encompass supplying materials and training to parents to facilitate home learning and establishing chances for their active participation in school initiatives (DesGeorges, 2013).

Consequences for Implementation and Regulation

The identified problems indicate multiple consequences for practice and policy. Augmented Educator Training: Extensive professional development programs that emphasize deaf education techniques, sign language skills, and inclusive project-based learning practices are essential. This aligns with the recommendations made by the World Federation of the Deaf in 2018, emphasizing the need for qualified educators proficient in the national sign language.

Investment in Assistive Technologies: Educational institutions and policymakers must prioritize investment in assistive technologies and resources that promote accessible learning environments for deaf children (National Deaf Children's Society, 2020).

Curriculum Modification: We must modify the P5 curriculum to accommodate the unique needs of deaf children, incorporating visual learning resources and alternative communication strategies. Engagement with experts in deaf education can improve curriculum development (Marschark et al., 2015).

Parental Engagement Programs: Educational institutions must adopt techniques to actively involve parents, acknowledging their vital role in enhancing learning. Offering assistance and resources to families can connect home and school environments (Jackson et al., 2010).

Policy Development: Policymakers must address the distinct requirements of deaf students in educational reforms, guaranteeing that efforts such as P5 are inclusive and accessible. This requires the provision of sign language interpreters and support personnel in academic settings (United Nations, 2016).

Constraints and Prospective Investigations

This study's qualitative approach and focus on a specific geographical region constrain its insights. Future studies may investigate quantitative metrics for assessing the efficacy of P5 implementation and expand to additional locations to improve generalizability. Furthermore, longitudinal research investigating the enduring effects of modified P5 curricula on the results of deaf kids would be advantageous.

CONCLUSSION AND SUGGESTION

The successful implementation of the Pancasila Learner Profile for deaf students necessitates a comprehensive communication approach, encompassing the development of speech sound and rhythm perception. A reflective maternal method is essential to overcome language barriers and establish language support as a foundation for learning. Developing appropriate life skills for future business sustainability requires technology support, teacher readiness, stakeholder engagement, and corporate support. By utilizing international best practices and research, educators and policymakers can develop strategies that can improve the educational experience for deaf students, aligned with the goal of optimal education for deaf students. Challenges persist in the project-based learning and learner profile outcomes of Pancasila as teachers struggle to understand the comprehensive communication approach, which hinders the learning process. However, deaf learners experience the final results of the Pancasila learner profile as they participate in activities like cooking, dancing, and entrepreneurship to enhance their learning. These results are significant, but it would be more beneficial for developing students' competencies if teachers could master all classroom communication aspects, apply reflective teaching methods, and possess technological skills that can connect project-based learning with innovative learning materials.

This research has revealed significant challenges in implementing the Pancasila Learner Profile (P5) through project-based learning (PBL) for deaf students in Sekolah Luar Biasa (SLB). The main challenges identified include language and communication barriers, limited technology support, inadequate teacher training, diverse education levels within the classroom, and inconsistent parental and community involvement.

Language and communication barriers are particularly evident among deaf students due to their limited vocabulary and language skills. This hinders their ability to understand instructions, express ideas, and fully engage in PBL activities central to the P5 framework. The scarcity of appropriate technology resources further exacerbates these challenges, limiting the effectiveness of visual aids and assistive devices critical for deaf students.

Teacher readiness emerged as an essential factor affecting successful P5 implementation. Many educators lack specialized training in deaf education methodologies, including proficiency in sign language and total communication approaches. This gap hinders their ability to adapt curriculum and teaching strategies to meet the unique needs of deaf students.

Despite these challenges, the research also highlights the positive impact of adaptive teaching methods, collaborative efforts among educators, and increased parental involvement. When teachers used practical, hands-on activities and adapted their approach to students' needs, there was a marked improvement in student engagement, social interaction, and skill development.

Successful implementation of the Pancasila Learner Profile for deaf students depends on teachers' ability to recognize and address their unique challenges. By improving teacher competencies, investing in appropriate resources, adapting curricula, and fostering collaborative partnerships, educators can create meaningful and accessible learning experiences. This holistic approach not only benefits deaf students but also contributes to the broader goal of inclusive education, ensuring that all learners have the opportunity to develop the skills and values essential to their personal growth and contribution to society.

Based on the findings of this study, the following suggestions are proposed to enhance the implementation of the Pancasila Learner Profile for deaf students in unique education settings:

Enhance teacher training and professional development

1) Specialized Training Programs: Develop and implement comprehensive professional development programs focusing on deaf education methodologies, sign language proficiency, and inclusive PBL strategies. This aligns with international recommendations emphasizing the need for qualified teachers proficient in national sign languages.

2) Total Communication Approach: Encourage teachers to adopt the total communication approach, integrating sign language, oral communication, and visual aids to facilitate better understanding and interaction with deaf students.

3) Reflective Maternal Method: Promote the reflective maternal method to support language development and overcome communication barriers, enabling teachers to provide more effective language support.

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