The implementation of inclusion services and social interaction for deaf students at Perwira Bogor city elementary public school

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ABSTRACT

Children with special needs face diverse obstacles in social interaction and communication, yet not all struggle equally in these domains. In response, Indonesia's government has implemented inclusive education initiatives to uphold their rights, as mandated by Law No. 20 of 2003. This study investigates inclusive education provision and social interactions among deaf students, regular peers, and teachers, aiming to evaluate services enhancing social integration for deaf students. Employing qualitative methods with descriptive analysis, the research sheds light on the challenges deaf children encounter, particularly in verbal communication, necessitating reliance on visual cues to compensate for hearing impairments. Perwira Elementary Public School employs specialized activities fostering auditory perception and rhythm communication skills. Crucially, parents are instrumental in supporting their children's verbal communication through everyday language practice, aided by hearing devices and teacher guidance. This research underscores the importance of inclusive education initiatives in facilitating social interaction and communication for children with special needs. It provides insights into effective strategies, such as sensory-focused activities and parental involvement, contributing to the broader discourse on inclusive education and its implications for the well-being and development of children with special needs.

1. Introduction

The results of the needs analysis conducted by researchers at Perwira elementary public school indicate that deaf students at this school exhibit a wide range of abilities and achieve success in both academic and non-academic domains. However, there is a need to update and replace service facilities, despite their current usability. Regarding the education of children with special needs, individual differences are highly valued, as each child possesses unique characteristics. Environmental adaptation education is necessary for children with special needs to foster independent development and promote positive interactions [1]. In general, children with special needs, as defined by Findling *et al*, exhibit distinctive characteristics without necessarily having mental, emotional, or physical limitations [2]. Various types and characteristics of children with special needs are of concern and cannot be differentiated by the state or by us as a social community. Education serves as an investment in human resources to enhance the nation's standard of living [3]. Inclusive education is specifically defined as an endeavor to provide education for both children with special needs and typically developing

children. The aim is to bridge the gap between children with special needs and their typically developing peers while maximizing the potential of the former [4]. Implementing an inclusive school system is a prerequisite for building an inclusive society, one that respects diversity and upholds mutual values [5]. Inclusive schools offer an education system that is relevant and challenging yet tailored to students' abilities and needs [6]. Teacher assistance and support are utilized to foster positive academic and social outcomes for students. Social development is evidenced by students' ability to form meaningful relationships, influence peers, and demonstrate empathy [7]. Social interaction plays a crucial role in the development of children from toddlers to junior high school students [8]. Effective socialization can positively impact children with special needs, enhancing academic performance and bolstering self-esteem. Conversely, children who struggle with socialization may exhibit reserved behavior due to lack of confidence. Sociable individuals are readily accepted by their communities as they foster meaningful friendships [9].

According to the theory proposed by Voci *et al*, effective communication necessitates truthfulness to achieve desired objectives efficiently [10]. Social interactions extend beyond public schools catering to students without special needs, as Indonesia also offers special schools and inclusion schools for students with diverse needs. Inclusive education, akin to general education, accommodates children with varying abilities and talents alongside typically developing peers [11]. Social interaction is vital for children with special needs in inclusive school environments, facilitating communication and fostering their unique characteristics, which may not always entail mental, emotional, or physical disabilities. The umbrella term for the child with special needs encompasses visually impaired, deaf, mentally retarded, physically disabled, hearing impaired, learning difficulties, behavioral disorders, gifted, and health-impaired children, each requiring tailored educational services [12]. Deaf children experience hearing loss due to malfunctioning hearing aids, necessitating specialized guidance and education for language and skill development [13]. Their language acquisition differs from that of typically developing children, relying on full communication, which utilizes various forms such as sign language, reading, writing, and speaking [14]. Natarajan *et al,* defines deafness as hearing loss, typically exceeding 70 decibels, necessitating the use of hearing aids for comprehension [15].

Deaf children, who are also classified as children with special needs, require specialized educational services. While the facilities needed by children with special needs are similar to those required by typically developing children, the methods of service delivery differ. Unfortunately, disability-friendly educational facilities in Indonesia are scarce and receive minimal attention, contributing to a rising percentage of children with special needs lacking appropriate education. The establishment of inclusive schools, which integrate both regular and special needs students in the same learning environment, serves to enhance awareness and interaction between individuals with disabilities and the general populace [16]. Since the early 2000s, the Ministry of Education and Culture of the Republic of Indonesia has been implementing an inclusive school program. This initiative is an evolution of the inclusive education program that commenced in the 1980s but experienced limited development. It resurfaced in 2000 in alignment with global trends, employing the integrated education concept to advocate for the rights of children with special needs and provide equitable educational opportunities tailored to individual needs [17]. Perwira Bogor City Elementary Public School is among the institutions in Bogor City offering inclusive education at the elementary level, catering to deaf students. Through inclusive education, the school aims to educate deaf students alongside their typically developing peers, thereby minimizing the gap between children with special needs and their regular counterparts. Given this context, the author is interested in analyzing the social interaction challenges faced by deaf students in elementary schools. As a central district officer in Bogor City, the school plays a pivotal role in providing inclusive education opportunities.

2. Method

The library method involves analyzing research by scrutinizing supporting information such as books, journals, and documents. The data analysis technique employed is interactive data analysis using the Milles and Huberman model, implemented through a three-step data analysis model. Firstly, data reduction involves reviewing, writing, and summarizing data acquired

through observation, interviews, and documentation activities. This process, conducted throughout the research until completion of the report writing, aims to determine themes and relevant data required by the researcher. Secondly, data presentation occurs subsequent to data reduction. The researcher presents the obtained data in the form of concise narrative descriptions. By presenting the data, researchers facilitate understanding of the areas necessitating further study and analysis, enabling informed decision-making and planning of subsequent steps, including design planning. The design planning phase aims to formulate and implement previous stages into a developmental design, enhancing comprehension. This school, located in Bogor City, is among the institutions offering inclusive education, utilizing a national curriculum adapted to accommodate students' conditions, with modifications to reduce indicators. Primary data sources include one special education teacher, one regular student, and one deaf student in Class II, while secondary data sources encompass documentation of interactions between deaf students, teachers, and regular students. Finally, drawing conclusions involves synthesizing observations, focused discussions, and documentation to derive conclusions. This stage aims to elucidate unclear data, emphasizing the significance of parental roles in teaching deaf children to speak at Perwira Elementary Public School, articulated through an in-depth descriptive analysis review (qualitative), culminating in diverse alternative education provision designs.

3. Results and Discussion

The hearing impairment experienced by deaf children often leads to lower academic achievement compared to their typically developing peers [18]. The following results stem from research acquired through interviews and observations conducted with deaf students, regular students, and special education assistant teachers.

- Social interactions between deaf students, regular students, and teachers were observed both within and outside the classroom. The observations revealed that regular students and deaf students communicate using local sign language and spoken language. This interaction proves beneficial for deaf students, especially when the special education assistant teacher is unavailable. These findings align with interviews conducted with special education assistant teachers, who highlighted the considerable support provided to deaf students during class activities by their peers. Outside the classroom, regular students engage in various activities with deaf students, such as conversations, studying, playing, visiting the canteen, and even emulating each other's behavior. Regular students in inclusive schools demonstrate empathy and cooperation by sharing stationery and food with their deaf peers. Overall, the interaction between deaf students, regular students, and assistant teachers fosters social connections and effective communication, as emphasized by Narwok et al. According to Andersen *et al*, social interaction requires two essential conditions: social contact and communication [19]. Deaf students also exhibit a tendency to imitate the behavior of regular students, highlighting imitation as a significant factor in social interaction. Imitation involves replicating the actions or behaviors of others and serves as a fundamental aspect of the social interaction process [20]. Additionally, observations indicate that special education assistant teachers display patience in supporting the learning of deaf students. This patience is evident when the teachers explain concepts and address questions, even when students become disengaged. Providing attentive support forms the cornerstone of educating deaf children, as it requires patience and dedicated attention [21].

- Educational services for deaf students at Perwira Elementary Public School entail the utilization of specialized programs such as the PKPBI (Sound and Rhythm Perception Communication Development) program. This program aims to enhance students' residual hearing by facilitating their understanding of sound, thereby enabling them to interpret sounds and noises in their daily lives. The overarching objective is to steer deaf children away from a solely visually dependent lifestyle, encouraging a closer alignment with that of typically developing children. Sound and Rhythm Perception Communication Development involves regular or spontaneous activities aimed at optimizing deaf children's remaining hearing and vibrational sensations, fostering interaction with their environment [22]. At Perwira Elementary Public School, the PKPBI program is conducted on a weekly basis. The initial phase involves sound identification, during which the

teacher meticulously plans learning activities tailored to meet specific learning objectives. This planning takes into account individual student characteristics, PKPBI assessment results across grade levels, and students' auditory aptitude evaluations. Subsequently, during the implementation phase of the PKPBI program, deaf students are guided through stages including sound detection, discrimination, identification, and comprehension. Various instructional methods such as social activities, play, demonstrations, and conversations are employed, with formative evaluation serving as the primary assessment tool.

According to the results of observations and interviews, Perwira Elementary Public School offers various educational services to cater to the needs of deaf students, among which is total communication. Total communication, a communication concept developed to facilitate effective communication for deaf children with both deaf and hearing individuals, is implemented through specific steps in the learning process, coaching, and training [23]: (1) Speech and articulation development involves conducting exercises to facilitate the formation of speech sounds using the mechanisms of the speech apparatus, accompanied by speech correction techniques; (2) Speechreading practice entails exercises aimed at recognizing and interpreting letters, syllables, and words by observing the lip movements of the speaker; (3) Speech teaching encompasses efforts to foster students' abilities to express thoughts, feelings, and ideas verbally, utilizing techniques involving breath control, speech organs, muscles, nerves, and cognitive faculties; (4) Passive and active language teaching comprises exercises designed to enable children to comprehend written language and convey meaning through verbal expression. Implementing full communication effectively requires active participation from teachers, therapists, parents, and guardians. It is crucial to recognize that, in the application of all communication models, attention must be given to the varying nature of perceived deafness [24]. Children with special needs are capable of interacting well, albeit often categorized as slow learners. A slow learner is characterized by limited intellectual potential, resulting in a slower pace of learning [25]. Another essential educational service involves the use of learning media. Various learning media can facilitate communication language comprehension for deaf children. Examples include: (1) Finger alphabet: The finger alphabet, adaptable for both deaf and blind children, represents letters and numbers using finger formations of the right and left hand, conforming to manual letter styles worldwide; (2) Sign language: Given the limited hearing abilities of blind children, developing spoken language skills proves challenging. Therefore, sign language, developed by experts, becomes an essential means of communication. Despite challenges in oral methods, sign language serves as a primary communication tool [26].

Deaf children exhibit several characteristics, including: (1) impaired hearing ability; (2) delayed language development; (3) reliance on sign language for communication; (4) unclear and insensitive language delivery when spoken to, and (5) unclear speech (Hamdani, 2021). Another critical service is accessibility in education, an area where Perwira Bogor City Elementary Public School is currently lacking, particularly in terms of comfort and security. Insufficient provision of accessibility facilities hinders children with special needs from accessing equal opportunities in all school activities. One form of accessibility enhancement in inclusive schools is the display of running text within the school premises, facilitating information access for students with disabilities. These facilities and infrastructure are essential not only for regular education but also for catering to special needs and disabilities, necessitating effective management and accountability. Despite some shortcomings, Perwira Elementary Public School strives to fulfill the service needs of deaf students, aligning with Indonesian President Joko Widodo's message on the International Day of Persons with Disabilities 2021, emphasizing the significance of commitment and services for individuals with disabilities as a measure of a nation's progress in civilization. Accessibility plays a crucial role in ensuring equality of opportunity across various aspects of life and livelihood for individuals with disabilities. When children with special needs receive proper treatment, it positively impacts their emotional well-being and overall growth and development [27].

4. Conclusion

Based on the results of this research, which involved data collection and analysis of social interactions among deaf students, regular students, and teachers, as well as educational services

for deaf students at Perwira Bogor City Elementary Public School, the following conclusions can be drawn: (1) Social interaction between deaf students and regular students predominantly occurs using local sign language. Regular students exhibit positive responses by assisting deaf students in learning activities. Deaf students demonstrate the ability to establish effective social contact and communication with their peers. Regular students display understanding of the characteristics of deaf students, fostering a comfortable and harmonious school environment. Social interactions between deaf students and special education teachers involve the use of both local and national sign languages. Deaf students exhibit comfort and compliance in interacting and communicating with special education teachers, as they frequently engage in activities together. This relationship fosters receptiveness to advice from special education teachers, enabling deaf students to adhere to and follow guidance effectively; (2) Educational services tailored for deaf students effectively address their needs. These services significantly facilitate deaf students' participation in learning activities and enhance their communication skills, thereby fostering positive social interactions with peers and increasing overall convenience for deaf students.

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