



# Analysis of the Use of Audiometers as an Assessment Instrument of Deaf Students in Preparation to Enter the World of Education: A Case Study of Deaf Students in Malang Raya

Rizqi Fajar Pradipta, Dimas Arif Dewantoro, Abd. Huda, Lilik Yulia Yasmine, Fadillah Ariani

Department Of Special Education, Universitas Negeri Malang, Indonesia

Rizqi.fajar.fip@um.ac.id

**Abstract.** The purpose of this research is to describe and analyze the condition of the process of accepting new deaf students in SLB B and the needs of institutions in the process of classifying students with hearing impairments. The research method used was qualitative data collection was carried out using a questionnaire which was distributed to special schools in Malang Raya. The results show that the conditions experienced by special school institutions, Part B, only get a few students in the process of accepting new students due to several factors, such as competition with inclusive schools, favored SLB schools, and parents' awareness to send their children to school. Some schools do not use hearing test results as a condition for admitting new deaf students.

**Keywords:** acceptance of new students, audiometer, deaf

## 1 Introduction

The newest paradigm in the field of special education has begun to shift to education for children with special needs, which currently has a wider scope and reaches all types of children who have learning difficulties. In the scope of Special Education generally only targets blind, deaf, mentally retarded and quadriplegic children, as well as disabled children who do not always meet the child's educational needs. Based on the coverage originating from the Education of Children with Special Needs includes all children who have learning difficulties, including children with language, reading, writing, and/or math difficulties, children who are included in the naughty category and are ostracized due to circumstances social, emotional, economic, and political as a whole can be served through education with special needs.

In the concept of special education and in the segregation education system, children with special needs can be seen based on the aspect of their disability (labelling), as a basis for providing educational services, so that every disability must be given special education services and is different from other disabilities. In practice there are special schools or

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special schools for deaf, blind, mentally retarded, quadriplegic children. This separate service from ordinary education is called a segregation education system. Therefore, there is a dichotomy between special education or special education or special schools and ordinary education or ordinary schools, which are considered as two completely different things. In other words, the main focus in Special Education is the non-child disabled label as a unique individual.

In Permendikbud students admission 1 of 2021 concerning of admission of new students at Kindergarten, elementary, middle School, and high school there are many differences from Permendikbud 44 of 2019 regarding acceptance of new students preschool until high school. The differences between the two Permendikbud have several considerations including the following. (1) That every citizen has the right to receive quality and fair education as stipulated in the 1945 Constitution of the Republic of Indonesia. (2) Whereas Regulation of the Minister of Education and Culture Number 44 of 2019 concerning admission of new students at Kindergarten, elementary, middle School, and high school have not accommodated the growing legal needs for educational services, so they need to be replaced.

Permendikbud 1 of 2021 concerning admission of new students at Kindergarten, elementary, middle School, and high school underlines in article 1 that Admission of New Students to preschool until high school is carried out objectively, transparently and accountably, carried out without discrimination except for schools specifically designed to serve students from certain gender or religious groups. Meanwhile, based on Malang Mayor Regulation Number 5 of 2021 concerning Guidelines for Implementation of acceptance of new students for the 2021/2022 school year in Malang City regarding admission of new students at Kindergarten, elementary, middle School, and high school are as follows. (1) Elementary and middle school are required to accept children with special needs, taking into account the resources the schools have. The number of students with special needs that the school serves in one group (study group) is a maximum of two students, with no more than two disabilities. For students who experience severe obstacles, students can register for special school. (2) acceptance of new students for prospective inclusive students is carried out through offline admission, namely prospective students come to the destination school to make observations. If the results of observations of prospective students require heavy service and the school does not have infrastructure, then prospective students can register for an special school. 3. The requirements for prospective inclusive students are as follows: For prospective kindergarten and primary school students, submit a certificate of initial assessment results in the form of physical/psychological, academic, functional, sensory and motor assessments from an authorized psychology institution or expert. For prospective junior high school students submit Certificate of Passing and submit the results of the last assessment from the school of origin. The letter is also accompanied by an additional certificate from a psychiatrist's diagnosis for children with special needs examination results of an IQ test from a psychologist. Giving priority to students with special needs whose residence is closest to the school providing inclusive education without distinguishing between economic status and disability or speciality. The student concerned

is ready to interact with his friends and is not hyperactive. If the number of applicants exceeds the capacity, there will be a verification process by the intended educational unit.

In Special Schools or Inclusive Schools, they still follow the policies that exist in each particular Regency or City. One type of disability found in special school is deaf students, with the term School for special needs for deaf students. According to Somad and Hernawati gave a statement that a deaf child is someone who experiences a deficiency or loss of ability in hearing either partly or involving all of the hearing aids, so that he cannot use his hearing aids in everyday life which gives impact on their lives in a complex way (1).

After understanding the understanding and abilities found in deaf children, observations in the New Student Admissions System, especially in special school or Inclusive Schools in Malang Mayor Regulation Number 5 of 2021 regarding admission Implementation Guidelines for the 2021/2022 academic year state that "For prospective kindergarten/elementary school students submit a certificate of initial assessment results in the form of a physical/psychological, academic, functional, sensory and motor assessment from a psychology institution or an authorized expert." "For prospective junior high school students, submit Certificate of Passing and submit the results of the last assessment from the school of origin." This also applies to prospective deaf students by showing or attaching the results of an audiology test to be classified. Audiology is a branch of science dedicated to the study of hearing, balance and other related disorders.

Many schools do not yet have an audiometer because the price of the equipment is very expensive, namely in the range of 35-75 million, which is very unlikely for schools to have this device. On the other hand, the lack of space for hearing ability tests has prevented schools from providing such access to both prospective students and students. The price for a consultation and also a hearing test through an ENT specialist is expensive, with prices in the range of 120-500 thousand for a single consultation, which makes parents who have children with hearing impairments object to the price set.

## 2 Method

In conducting this research, using qualitative research. According to Tohirin qualitative research is research that seeks to build people's views of the person being studied in detail and formed with words, a holistic (thorough and in-depth) and complex picture (2). Meanwhile, according to Afifuddin the qualitative research method is a research method used to examine the condition of natural objects, the opposite is an experiment in which the researcher is a key instrument, data collection techniques are carried out by triangulation (combined), data analysis is inductive, and the results of qualitative research emphasize meaning rather than generalization (3). Based on the explanation that has been presented, it can be concluded that the qualitative research method is an approach that has an orientation to natural phenomena in understanding humanitarian and social problems where a researcher is also a key instrument, with data collection techniques carried out by

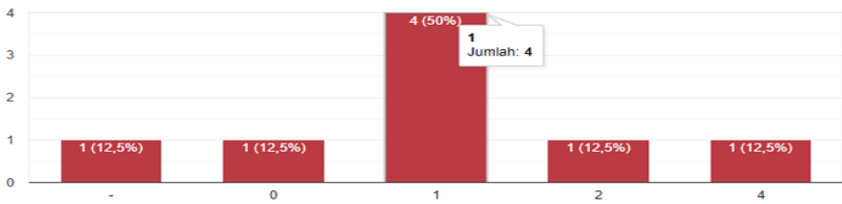
triangulation. (combined). This data analysis is inductive, and the research results emphasize meaning rather than generalization. The method used in this study uses a case study. Case studies themselves are included in descriptive analysis research, namely research that has a focus on a particular case to be observed and also analyzed carefully to completion. This case can be singular or plural. Here a sharp analysis is needed of the various factors associated with the case so that in the end an accurate conclusion will be obtained (4). Case study data can be obtained from all parties concerned, in other words in this study collected from various existing sources (5).

### 3 Result and Discussion

#### Result

Acceptance of new students is something that schools do every new school year for both regular schools and special schools. Special schools especially those in Malang Raya, each school on average always accepts new students every year with a different number, from the research results obtained from the 9 respondents of special schools the number of students accepted is at least 6 students and the most were 17 students, out of the 9 respondents not all schools had deaf students enrolled, the following is the data on the acceptance diagram for deaf students:

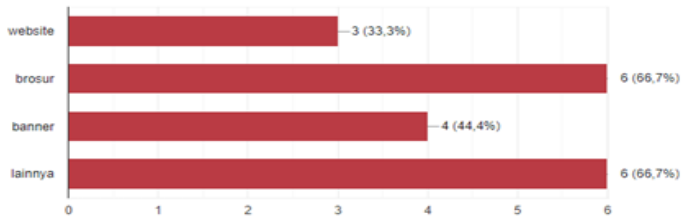
Figure 1. Diagram of new deaf students



From the results of the diagram above, it can be seen that there are three schools that do not accept new deaf students, four schools accept 1 deaf student, one school accepts 2 deaf students, and one school accepts 4 deaf students.

In the process of accepting new students, schools also have their own way of socializing their respective institutions in the admission process, both through websites, social media, banners, brochures, and others such as house-to-house socialization and through direct community institutions, along with a diagram of the socialization that school do:

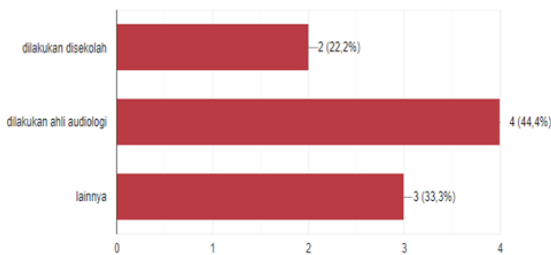
**Figure 2.** Socialization diagram Acceptance of new students

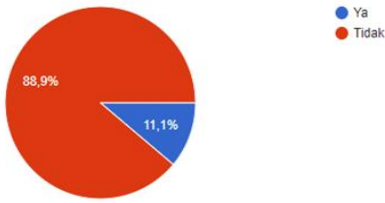


The diagram above shows that each school does not only do one way of socializing the acceptance of new students, out of 9 respondents there are three schools that use websites to socialize admission, six schools use brochures, four schools use banners, and six use other methods. The data above proves that schools can use more than one way to socialize the acceptance of new students.

In accepting new students, especially deaf students, schools or institutions also have several requirements such as psychological test results to see if students have intellectual impairments and hearing test results to see how severe the impairment is experienced by deaf students. Hearing tests are usually carried out by auditory experts to classify them. the level of hearing loss in students whether mild, moderate, severe, and very severe. With the hearing test the teacher can identify and assess deaf students to determine the learning program. Auditory hearing tests can also be carried out in schools or institutions that have complete facilities and infrastructure, but not all schools have facilities and infrastructure such as audiometers to carry out hearing tests. From the results of the study, only a few schools carried out auditory tests independently at school, here's the diagram. research data:

**Figure 3.** Auditory test diagram using an audiometer





From the pie chart above, it can be seen that out of the 9 respondents, only one school used an auditory test using an audiometer independently at school, while the other 8 schools were conducted by auditory experts. From the bar chart, it can be seen that 2 schools conducted independent hearing tests at school, but only one school used an audiometer. Meanwhile, 4 schools used test results from auditory experts, and 3 schools used their own way to conduct hearing tests. From the data above, it can be concluded that the use of audiometric tests using an audiometer is still very rarely done because the tool is very expensive, namely with a price range of 35-75 million which is very unlikely for schools to have this tool. On the other hand, the lack of space for hearing ability tests has prevented schools from providing such access to both prospective students and students. The price for a consultation and also a hearing test through an ENT specialist is expensive, with prices in the range of 120-500 thousand for a single consultation, which makes parents who have children with hearing impairments object to the price set.

## Discussion

Acceptance of new students in special schools is an important process to ensure that children with special needs get access to education that is appropriate and beneficial for their development. Special schools are educational institutions specifically designed to serve children with various special needs, such as physical disabilities, intellectual disabilities, developmental disorders, autism, and other learning problems. In the process of accepting new students, each school must have its own problems in the process, both in terms of socializing, registering, and the process of registering new students.

In socializing the process of accepting new students, each school institution has its own way of socializing it, using websites, banners, brochures, and other methods depending on the capabilities of each school institution. From the results of the research conducted from the 9 respondents the admission socialization process was carried out in not only one way, one school could use 1 to 3 ways to socialize the process of accepting new students, this was done to make it easier to convey to the community. The findings of this study are in line with Fadhillah's research in which the results of this study can show that the strategy for promoting new student admissions activities is carried out by utilizing the internet, especially school websites, guidebooks from schools, ballot boxes, brochures, decorations around the school, school stationery, uniforms, outreach to schools, presentation of school programs using banners as media in promoting the school (6). There are several obstacles in the process of promoting the acceptance of new students,

especially by using billboards or banners. This is because not all banners can reach the entire contents of the city. Therefore, every special school institution uses not only one way to socialize the process of accepting new students so that the information you want to convey can reach a wider community, by spreading information socialized by school institutions, this can invite new students to register. to these institutions, of course school institutions also have quota targets for new students.

The quota for accepting new students is also a problem in the admission process because not every school institution can meet this quota, especially special schools which have quite a lot of competition, especially special school for deaf in Malang Raya. With so many special schools in Malang Raya, of course there is competition for ordinary school institutions in finding new students. This condition can also cause school institutions to have a small number of students. each school, especially the deaf, very few got 4 students, 2 students, and some even did not get deaf students. The low acceptance of new students is influenced by several things, such as the existence of favorite schools, parental awareness, lack of socialization from school institutions, competition with inclusive schools and other things. Yuliani stated in his research that the obstacles experienced were due to the limited number of favorite schools so that the distribution of students was not carried out (7). Parents think that sending their children to schools that are more favorite and good will further improve their children's abilities, because the favorite schools also have good facilities and infrastructure. Other factors can also affect the low acceptance of students because the distance to schools which are relatively far from home is also a separate reason for parents of students, and the existence of inclusive schools is also a separate competition for special schools because parents also want their children be in a regular school for a more inclusive experience.

Acceptance of new students, especially deaf school institutions, has its own requirements by attaching psychological test results and hearing results tests in order to find out the level of student competency and how severe the student's hearing loss is. Hearing tests are a natural thing for deaf students to attach, hearing tests are usually carried out by an audiologist and hearing tests can also be carried out in related school institutions. However, in its implementation there are still many schools that do not use the results of the hearing test in the process of accepting new students, from the results of the research conducted from the 9 respondents only 8 schools used the results of the hearing test in the process of accepting new students, from the 8 schools one school did hearing test independently using an audiometer, and the school has experts in carrying out the hearing test, and 7 schools use the test results that have been carried out by an audiologist. There are several reasons school institutions do not use hearing tests in the process of accepting new students, this is due to the high cost of consulting in carrying out hearing tests with an audiometer with a price range of 120-500 thousand for one consultation which can burden parents of students. The hearing test tool in the form of an audiometer is also very expensive with a price range of 35-75 million which is very unlikely for schools to have this tool and there are still not enough experts to use the tool and also require a separate room to carry out the auditory test.

The results of student hearing tests can be used as identification and assessment to make it easier for schools to determine placement for new students so that the learning process can run smoothly. The results of the hearing test are used as a reference in making assessments of students because deaf students have different levels of severity, so that the learning program that will be implemented is also different for each new deaf student, from this the school makes individual learning programs for students to make it easier and adjust students according to their abilities in the learning process, from the results of the research conducted from the 9 respondents it was found that 3 schools used the results of the hearing test as the preparation of learning programs for new students, and 6 schools did not use the results of the hearing test as a design for preparing learning programs. The learning program is very important to determine success in learning for students, with a good learning program the teacher can evaluate the development of students. Magdalena in her research suggests that evaluation is an effort to determine the level of student learning outcomes whether they are in accordance with the program and learning objectives, evaluation is also used for the development and design of new learning programs for students (8). With the results of the hearing test which is used as a reference as an identification and assessment tool for deaf students, educators can make good learning programs and stay according to their abilities so that evaluation in learning goes well.

## 4 Conclusion

Based on the results of the research, the conditions experienced by special school institutions part B only get a few students in the process of accepting new students due to several factors such as competition with inclusive schools, favored special schools, and parents' awareness to send their children to school. Some schools do not use hearing test results as a condition for accepting new deaf students, because they do not want to burden parents due to expensive consultation fees, some schools also only use hearing tests conducted by audiologists in the process of accepting new students due to a lack of facilities and infrastructure. to carry out a hearing test using an audiometer because the price is quite expensive, a hearing test is needed to classify the severity of deaf students in hearing.

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