Journal of Research in Islamic Education
Volume 7, Number 2, December 2025
DOI: 10.25217/jrie.v7i1.6454
https://journal.iaimnumetrolampung.ac.id/index.php/jrie

Perception of Visually Impaired Students Towards The Accessibility of Physical Infrastructure In The Classroom of The Department of Special Education, State University of Padang

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Article Information:
Received : 2025-07-24
Revised : 2025-08-06
Accepted : 2025-08-16

Keywords: *visual impairment, accessibility, physical infrastructure, classrooms, quality education*

Abstract

This study aims to describe the perception of visually impaired students regarding the accessibility of physical infrastructure in the classroom in the Department of Special Education, Padang State University. This study uses a qualitative descriptive approach, with data collection techniques through in-depth interviews, observations, and documentation of five visually impaired students as research subjects. The results of the study show that the accessibility of physical infrastructure in the classroom still needs to be improved. Some of the obstacles faced by visually impaired students include inconsistent desk and chair arrangements, suboptimal lighting for students with low vision, and access routes that are not fully disability-friendly. Although several efforts have been made by the university to provide inclusive facilities, they have not fully met the needs of visually impaired students. These findings provide important input for campus administrators in improving the quality of inclusive and equitable education services.

INTRODUCTION

Education is a bridge with the aim of achieving a better way of life and self-actualization, starting from the elementary level to the university level. It can be known that higher education is an education that bridges education, including students with disabilities in it, this is also emphasized by (Ainscow & Booth, 2002) in the Index for Inclusion which emphasizes that the education system must remove barriers to learning and participation for all students. Inclusive education has become an important discourse in ensuring equitable education for all learners, including persons with disabilities, access to inclusive and quality education is a fundamental human right. Visually impaired students, as part of this group, require special accommodations, especially in the physical layout of the classroom (UNCRPD, 2006). The focus of my research this time is specifically for students with disabilities who experience visual impairment or blindness, namely students who have lost their vision function so that they need special services in learning.

In the context of Indonesian higher education, there is regulatory support through Law No. 8 of 2016 concerning Persons with Disabilities. Despite these legal protections,

E-ISSN: 2685-3337

implementation remains inconsistent, especially in physical accessibility within campus. Preliminary studies show that infrastructure barriers still hinder learning engagement for students with visual disabilities (Nurmalia & Ramadhani, 2021). Discrimination is any discrimination, limitation, exclusion, harassment or exclusion on the basis of disability that intends or has an impact on the restriction or elimination of the recognition, enjoyment or exercise of the rights of persons with disabilities. Discrimination should also not be obtained by people with disabilities when they want to get education, especially higher education, because to access education is the right of all human beings and this is where universities must bridge their needs, including people with disabilities to get these educational needs.

Blind Disability is a person who has a problem in the sense of vision so that he has limitations in using his vision called blind disability (Khamil & Sopandi, 2018). The researcher has the view that students with visual disabilities still have a lack of access to infrastructure in the classroom in the PLB UNP department, to be able to help them in learning at PLB UNP, the perception of students with visual disabilities is needed, the researcher tries to observe the response of visually impaired students in the Department of Special Education UNP related to the sustainability of the department to be better.

Higher education is a right for every citizen, including students with visual disabilities. Students with visual impairments face challenges in accessing various physical facilities available in the campus environment, especially classrooms as centers for learning activities. Research by (Yssel et al, 2020) and (Mutanga & Walker, 2015) emphasizes the need for supporting infrastructure in higher education to increase engagement and independence.

Based on the results of a preliminary study conducted by the researcher in September 2024, the researcher has interviewed active Special Education students for the 2022 academic year who are visually impaired. The researchers met with students with visual impairments. After the researcher conducted an interview, it turned out that there are still some infrastructures in the PLB UNP Department that are less inclusive, while the classrooms where students with disabilities learn must be fulfilled for them so that learning can run comfortably and can focus on learning. Therefore, this study aims to describe how students with disabilities perceive the accessibility of physical infrastructure in the Department of Special Education, Padang State University, so that it can provide

information so that later this will be more inclusive and good, both for students with visual disabilities and the PLB UNP Department.

This research has a high potential role considering the importance of providing accessible learning infrastructure for students with visual disabilities in supporting the learning process in the classroom. Although the principles of inclusive education have been accommodated in various national and international policies, their implementation in the higher education environment still faces various challenges, especially in terms of fulfilling physical and non-physical accessibility. The mismatch or limitation of learning facilities can be a significant obstacle that affects the active participation, comfort, and academic achievement of students with visual impairments. Therefore, this study is important to explore the direct perception of visually impaired students of the available infrastructure conditions, as the basis for formulating strategic recommendations to create an equal, inclusive, and equitable learning environment for all students.

A number of previous studies have raised the issue of educational accessibility for students with disabilities. For example, research by (Simatupang & Siregar, 2021) shows that limited physical facilities such as guiding blocks and emergency evacuation routes on campus are the main obstacles in the mobility of visually impaired students. Meanwhile, a study (Rahmawati & Kustiawan, 2020) highlights that the provision of disability-friendly learning facilities, such as audio whiteboards and teaching materials in digital format, is still not optimal in many universities in Indonesia. Another study by (Yuliani et al, 2022) found that classroom accessibility, including lighting, chair layout, and the presence of assistive technology, greatly influenced the involvement of students with disabilities in academic activities.

Nevertheless, none of the three studies have directly focused on improving how visually impaired students perceive the physical accessibility of classrooms at Padang State University's Department of Special Education. Therefore, this study adds significantly to the local context as a new update and can improve the empirical database for the creation of inclusive policies that are more focused on the target

Perception here is an observation or thought that can be obtained from the surrounding environment about a thing or information that can be expressed through a response given by a person or responder, which aims to solve or solve a problem (Apriliani & Sopandi, 2020).

METHOD

This study uses a qualitative descriptive approach to gain an in-depth understanding of the perception of visually impaired students towards the accessibility of physical infrastructure in the classroom. Namely the collection of information and data in depth and systematically. Descriptive research is a form of research that explains or explains the results obtained during research (Sugiyono, 2011; Creswell & Poth, 2018).

The source of research in this study is a student with a totally blind disability who is pursuing higher education in the PLB UNP Department study program who will be willing to provide their perception of the infrastructure of the PLB UNP department. In collecting data, researchers need tools in the form of observation guidelines, interview guidelines, and documentation tools (Tracy, 2020).

Data collection techniques are the way researchers use to obtain data from their sources. This technique is conceptual or procedural, namely in the form of strategies or approaches used in data collection, The techniques used in this study are: Observation, interviews, and documentation (Flick, 2019).

Observation activities are basically an observation process that is carried out using the five senses to obtain information. Observations made to the object of research, with a focus on natural behavior, the dynamics that occur, and the description of behavior with the circumstances experienced (Mouwn Erland, 2020).

Interviews are a data collection technique so that the researcher can find out the topics he or she is exploring in depth (Hamdan, 2022). An interview is a meeting of two people to exchange ideas and ideas through a question and answer process, so as to get enough information on a certain topic. Researchers will collect data from informants with face-to-face interviews.

Documentation is one of the techniques of searching for data from various results of the process of collecting, storing, and managing information, whether in written, visual, or audio form, to provide accurate evidence and references (Arikunto, 2021).

The data analysis in this study adopts the approach developed by Miles and Huberman, in (Sugiyono, 2018) which emphasizes the continuous analysis process until it reaches the data saturation point. This approach is carried out through four systematic stages, namely: Data collection, data reduction, data presentation, and conclusion formulation. In the analysis stage, the data coding process is also applied to facilitate the interpretation of field findings (Saldaña, 2021).

FINDINGS AND DISCUSSION

Findings

Based on the results of interviews and observations of five visually impaired students at the Department of Special Education, Padang State University, it was found that most of the physical infrastructure in the classroom has not fully met the principles of accessibility.

Perception of Blind Students with Disabilities Towards the Accessibility of Physical Infrastructure in the Classroom

1. Perception of the Guiding Block of the Classroom Area

   Based on the results of the interview, the guiding block provides accessibility benefits for students with visual disabilities in accessing classes, but the benefits felt are not fully optimal.

2. Perception of the classroom door

   Based on the results of the interview, the classroom doors have not hindered accessibility for students with visual disabilities in accessing the classroom.

3. Perception of Desk and Chair Positions in the Classroom

   Based on the results of the interview, it was concluded that the position of desks and chairs in the classroom so far has not greatly hindered accessibility in the classroom for students with visual disabilities in accessing the classroom, because some classes for the position of desks and chairs have been in the shape of the letter U although there are some classes that have not been in the shape of the letter U.

4. Perception of the Availability of Braille Letters at the Classroom Door

   From the results of the interview, it was concluded that the availability of braille at the classroom door is very necessary, especially to help the orientation of new blind students and reduce dependence on others.

Pictrue. 1

Interview activities

Key Barriers Identified

1. Inconsistent table and chair arrangement

   Inconsistent table and chair arrangements lead to disorientation, especially when students rely on memory and touch for spatial navigation. Students report that the layout changes disrupt their routines and increase their dependence on peers while attending lectures.

2. Absence of Braille Letters on Classroom Doors

   Without this braille on the classroom door, blind students cannot independently identify the classroom, and always need the help of others to ascertain the location.

3. Lack of Guiding Blocks or Tactile Paths in and around the space

   The unavailability of guiding blocks or tactile paths in and around the classroom is the main obstacle in the orientation and independent navigation of students with visual disabilities in the campus environment.

These conditions indicate that the classroom has not implemented the universal design principle to the fullest, which should accommodate all users without the need for significant adaptation. Compatible with theory *Index for Inclusion* developed by (Ainscow & Booth, 2002) which emphasizes that inclusive education is a process that continues to evolve and requires reflection and continuous changes in the policies, culture, and practices of educational institutions in order to eliminate the barriers to learning and participation for all students.

An Inclusive Classroom Environment for Students with Blind Disabilities

Accessibility of physical infrastructure in the classroom plays an important role in supporting the learning activities of students with visual disabilities. A disability-friendly classroom environment is not only about the availability of space, but also includes how existing facilities and infrastructure are able to support mobility, independence, and student participation actively and equally (Deichmann, 2016).

1. Develop Guiding Blocks in the Classroom Area: One of the important elements is the guiding block that leads to the classroom. This path is a crucial guide for visually impaired students to find the classroom location independently. The results of the interviews showed that most students felt that the guiding blocks available were quite helpful in accessing the classroom. However, they also highlighted that the guiding block has not reached exactly in front of the classroom door, and some parts still use ceramic floors that are not equipped with guiding blocks. As a result, students remain

dependent on the help of friends in the final stages of getting to the classroom door. This shows that accessibility is not fully optimal and requires the development of a more comprehensive and sustainable guiding block path (Rahmat, 2022).

2. Accessible Classroom Doors: Classroom doors are also an important aspect in supporting the independence of blind students. In this study, all informants said that the classroom door is easy to open and does not make it difficult, both when pushed and pulled. This shows that by design, classroom doors already support accessibility
3. Accessible and Easily Recognizable Desk and Chair Arrangement: There is a need for a standardized classroom arrangement that considers the needs of students with disabilities, especially the use of the letter U shape as a whole (Phutane et al., 2022)
4. Availability of Braille Letters at the Classroom Door: The presence of Braille letters is very important, especially for new blind students. With Braille, blind students can more easily recognize the classroom without having to wait for help or information from other parties. This is an important support for their independence and confidence when navigating the campus environment (Dogbe, 2020).

Overall, the results of this study show that although most of the physical infrastructure is available, its implementation is still partial and does not fully reflect the principles of inclusive education. A truly inclusive learning environment according to (Ainscow, 2005) is an environment that not only provides physical access, but also facilitates active and equal participation through ongoing systemic improvement.

Good accessibility is not only a matter of convenience, but also a form of fulfilling the right to equal education for all students, including those with visual impairments (Zebehazy & Holbrook, 2025)

CONCLUSION

The research indicates that students with visual disabilities in the Department of Special Education at Padang State University still face difficulties in utilizing the physical infrastructure of classrooms. These difficulties include inconsistent desk and chair arrangements, the lack of Braille labels on classroom doors, and the incomplete coverage of guiding blocks across classroom areas. Such circumstances limit students' independence, comfort, and active involvement in lectures. Hence, the development of more disability-friendly facilities, such as improved spatial arrangements and adequate accessibility routes, is necessary to achieve inclusive higher education.

Despite the campus's efforts to provide inclusive facilities, the implementation is still partial and does not reflect the principles of universal design as a whole. Therefore, it is important to develop facilities that are more disability-friendly, such as standardizing the layout of U-shaped classrooms, installing Braille letters at classroom doors, and providing comprehensive guiding blocks.

This finding provides practical implications for the campus, especially department managers, to immediately evaluate and improve infrastructure to create an inclusive learning environment. With increased accessibility, students with visual disabilities can not only participate in learning equally, but also have greater opportunities to develop their academic and social potential.

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