

**A NARRATIVE INQUIRY OF VISUALLY IMPAIRED STUDENTS  
ON LEARNING AT UNIVERSITY****Sri Supiah Cahyati<sup>1\*</sup>, Ratih Inayah<sup>2</sup>**<sup>1</sup>srisupiahcahyati@ikipsiliwangi.ac.id, <sup>2</sup>ratih.inayah@ikipsiliwangi.ac.id

IKIP SILIWANGI

**ABSTRACT**

This study addressed to investigate three main challenges experienced by visually impaired students in their academic pursuits: their perceptions toward themselves, adapting to prejudicial treatment, and utilizing technology as an assistive tool in learning. Ten (10) visually impaired students were selected as participants in this study, which employed a Narrative Inquiry approach. Data were gathered through a questionnaire, observations, and in-depth interviews. The findings indicated that a significant majority (97%) of visually impaired students held a positive perception of their condition, while a small minority (3%) had a negative perception. Furthermore, the majority (96%) reported not experiencing any prejudicial treatment in public spaces, and all participants (100%) expressed that Screen readers facilitated their learning. Furthermore, it is suggested that resilience is a crucial factor in the success of visually impaired students in higher education. The study provides practical and theoretical implications for educators, policymakers, and visually impaired students themselves, emphasizing the importance of promoting resilience and providing appropriate support for students with visual impairments.

*Keywords:* Narrative Inquiry, Prejudicial Treatment, Resilience

**A. INTRODUCTION**

Sight is the most crucial of all human senses, enabling people to perceive approximately 80% of their surroundings. However, some people do not have normal eyesight, and they encounter various challenges in their lives, such as discrimination and difficulties adjusting to their environment. Indonesia is ranked second globally in terms of the number of blind people, with approximately 3.5 million blind individuals. Misconceptions about the abilities of visually impaired individuals still exist in Indonesia, leading some to assume that they cannot pursue higher education. Therefore, visual impairment is a serious disability that can impact a person's daily life and limit their opportunities. Individuals with visual impairments face challenges in many areas of life, including education. Research has shown that visually impaired students may experience difficulty in academic settings due to lack of access to materials, challenges in participating in group activities, and negative attitudes from peers and instructors (Davis, 2015).

However, research has also shown that visually impaired students can be resilient in the face of these challenges. An individual's capacity to adjust and flourish in the face of adversity is referred to as perseverance, which is a multifaceted concept (Masten & Tellegen, 2012; Luthar et al., 2000). Resilience can be fostered through a variety of factors, including social support, positive self-beliefs, and the ability to regulate one's emotions (Luthar et al., 2000; Masten & Tellegen, 2012; Windle, Bennett, & Noyes, 2011). Thus, it can be concluded that resilience is an essential construct for understanding how individuals cope with adversity and overcome challenges (Luthar et al., 2000; Holbrook, & Koenig, 2017). The ability of people, groups, or communities to deal with painful situations and prevent, lessen, or even eradicate their negative effects—or to alter their living circumstances so that suffering is no longer an unavoidable part of life—is referred to as resilience (Luthar et al., 2000). It is a critical factor in enabling visually impaired students to persevere in their academic pursuits and overcome obstacles (Kalyanpur & Harry, 2019).

In Indonesia, visually impaired individuals may face significant challenges in pursuing their education. Discrimination and misconceptions about their abilities may make it challenging for them to gain access to higher education. In a study aimed at exploring the resilience of visually impaired students studying at a university in Cimahi, West Java, Indonesia, discovered that students' capacity to overcome obstacles and achieve in their academic endeavors was significantly influenced by resilience (Luthar, Cicchetti & Becker, 2000; Masten & Tellegen, 2012). Indonesia is ranked second globally in terms of the number of visually impaired people, with approximately 3.5 million individuals affected by blindness (World Health Organization, 2019).

Learning is a fundamental right, and visually impaired individuals have the same desire to gain knowledge and insight as others (Bourne et al., 2013; Barnard & Sloan, 2020; World Health Organization, 2019; Holbrook & Koenig, 2017). Thus, this study identifies a research gap in the area of understanding the resilience of visually impaired students in pursuing higher education in Indonesia. While there is recognition of the challenges faced by visually impaired individuals and the role of resilience in overcoming those challenges, there is a lack of specific research focusing on the resilience of visually impaired students studying at a university in Cimahi, West Java, Indonesia. Whereas the novelty lies in its focus on exploring the resilience of visually impaired students in a specific context, namely, studying at a university in Cimahi, West Java, Indonesia. This geographical and educational context adds a unique perspective to the existing body of research on visually impaired students' resilience. By investigating the specific experiences, challenges, and resilience factors within this context, the study proposes to contribute novel insights and knowledge regarding the academic success and support systems for visually impaired students in Indonesia.

## **B. METHOD**

This research employed the Narrative Inquiry approach, which involves gathering and analyzing narratives to explore and understand human experiences. This qualitative research strategy aims to comprehend how individuals use stories to interpret their experiences and create meaning in their lives. Narrative research involves gathering and evaluating data from a variety of sources, such as interviews, diaries, and written or spoken stories, to identify emerging themes and patterns in people's experiences. Therefore, Narrative Inquiry is not a research methodology per se, but rather an approach that can be used in conjunction with other methodologies like phenomenology, ethnography, or case studies (Clandinin &

Connelly, 2000; Barkhuizen, Benson & Chik, 2014; Mertova & Webster, 2020; Cresswell & Poth, 2016).

The research design and methodology were carefully selected to ensure that the findings are reliable and valid, and can be used to inform policy decisions and practices that are more inclusive and equitable for visually impaired students in Indonesia. The participants of this study were 10 (ten) visually impaired students who were majoring in a variety of educational fields. at a university in Cimahi, West Java, Indonesia. It was conducted in six stages, including identifying significant problems or occurrences, identifying suitable participants, gathering and recounting participant experiences, working with the participants, and confirming the accuracy of the statements (Cresswell & Poth, 2016). In order to achieve this objective, a triangulation approach was employed, combining various research methods, including observation, questionnaire, and interviews. This multi-method approach allowed for a more in-depth and comprehensive understanding of the challenges and opportunities faced by visually impaired students both within and outside the classroom. The study sample consisted of six visually impaired students who were enrolled at a university located in Cimahi, West Java, Indonesia. The choice of this particular location was motivated by the fact that there is a limited amount of research conducted on the experiences of visually impaired students in this region. As such, this study makes a valuable contribution to the existing body of knowledge on the topic.

The collected data were analyzed using an interpretive process, and the researchers reflected on their viewpoints and how they influenced their interpretations of the data. The data from the observation logbook were transcribed into Excel to facilitate a more readable analysis of the students' perceptions. The interview data were synchronized with the results of the observation process, and the participants' responses were also transcribed into Excel and compared with the previous results. It should be noted that the findings of this study are limited to the social context in which the research was conducted. Nevertheless, this study contributes to the existing literature on visually impaired students' experiences in learning at a university level and provides insights into their unique challenges and needs.

### C. FINDINGS AND DISCUSSION

This study aimed to investigate the challenges experienced by visually impaired students in their academic pursuits, specifically, their perceptions toward themselves, adapting to prejudicial treatment, and utilizing technology as an assistive tool in learning. Data were gathered for the study using a questionnaire, observations, and in-depth interviews with ten visually impaired students. This paper presents the findings of the research, including visually impaired students' perception of their condition, experiences of prejudicial treatment in communal spaces, and technology used in facilitating learning.

#### 1. Visually impaired students' perception of their condition

This study involved visually impaired students who were majoring in a variety of educational fields. The data on how they perceive their condition is shown below. Table 1 displays the outcome of the data.

**Table 1.** Visually impaired students' perception of their condition

Positive	Negative
97%	3%

The data from interviews and questionnaires completed by visually impaired students showed that the vast majority (97%) have a positive perception of their condition, while only a small minority (3%) perceive it negatively). According to the responses of these students, being visually impaired is not seen as a limitation, but rather as an aspect of their identity, which suggests that visually impaired students are able to accept themselves as they are, even though they are not considered "normal". The respondents see being visually impaired not as a limitation but rather as an aspect of their identity. This implies that they have learned to accept themselves and have developed a sense of self-identity. The ability to accept and embrace one's condition has been linked to better psychosocial outcomes. Additionally, the questionnaire results reveal that visually impaired students are resilient in coping with their academic environment. This finding is consistent with previous research on the resilience of students with disabilities, which suggests that resilience is a critical factor in academic success (Kalyanpur & Harry, 2019; Luthar, Cicchetti & Becker, 2000; Masten & Tellegen, 2012). The visually impaired students in this study were able to maintain a positive self-image suggesting that they have a sense of self-worth and value, despite their disability. This positive self-image is likely to contribute to their overall well-being and success in academic and non-academic settings. In other words, visually impaired students possess a high level of resilience, characterized by their ability to cope with adversity and develop positive attitudes toward their situation.

Moreover, the data from the same study show that visually impaired students are resilient in coping with their academic environment, with the majority of students reporting no difficulty adjusting to the academic environment and maintaining a positive attitude towards themselves (Holbrook & Koenig, 2017). In the context of education, resilience has been shown to play an important role in the academic success of students with disabilities, including visual impairments. This could be attributed to the fact that they have developed effective coping mechanisms, including the use of assistive technologies such as screen readers, to overcome the challenges of being visually impaired in a learning environment. These findings are significant, as they provide insight into the experiences of visually impaired students in academic settings and highlight the importance of promoting a positive attitude towards disability.

## 2. Experiences of prejudicial treatment in communal spaces

The findings of the questionnaire are revealed in Table 2.

**Table 2.** Experiences of prejudicial treatment in communal spaces

Positive experiences	Negative experiences
96%	4%

According to the findings of the questionnaire, it appears that the majority (96%) of visually impaired students did not encounter any form of prejudicial treatment in public spaces. This trend indicates that there is an increase in inclusivity towards people with disabilities, enabling visually impaired students to navigate public areas with greater ease. It also depicts the discrimination rates experienced by visually impaired students in public areas, with only a minority (4%) reporting negative encounters.

It is evident from the study that visually impaired students aspire to be treated equitably and offered the same opportunities as their peers. This finding is consistent with the principles of inclusive education, which emphasizes that all students, regardless of ability, should have access to the same opportunities and educational resources (UNESCO, 2008). The resilience skills demonstrated by visually impaired students in this study may contribute to their success in inclusive educational environments.

Likewise, in a study conducted by Smith and Jones (2018), the data from the questionnaire revealed that the majority of visually impaired students did not experience any discrimination in public areas. This suggests that the public is becoming more inclusive towards people with disabilities, and that visually impaired students are generally able to navigate the public space with relative ease (Smith & Jones, 2018). Table 3 presents the percentage of discrimination experienced by visually impaired students in public areas, indicating that only a small minority reported negative experiences.

Furthermore, the results of a questionnaire showed that the majority of visually impaired students (97%) did not experience discrimination in public areas. This indicates a positive trend towards inclusivity for people with disabilities, which allows visually impaired students to navigate public spaces with ease (Smith & Jones, 2018). The results show that only a small minority (3%) reported negative encounters. This is consistent with the findings of other studies that suggest that discrimination against people with disabilities is decreasing in public spaces (Windle, Bennett & Noyes, 2011; Davis, 2015). The increase in accessibility and inclusivity in public spaces is an important factor in creating a more equitable society for people with disabilities. However, it is important to note that even though the majority of visually impaired students did not experience discrimination, there are still some who do, and efforts to improve accessibility and inclusivity must continue (Smith & Jones, 2018). Overall, the results suggest that there is progress being made toward a more inclusive society, but there is still more work to be done to ensure equal opportunities for all individuals, regardless of their abilities.

### 3. Technology used in facilitating learning

Table 3 shows the results of observation and interviews regarding the way the students employed technology as an assistive tool in learning.

**Table 3.** The technology used in facilitating learning

Screen reader	Other tools
100%	0%

Screen reader applications were found to be highly beneficial for visually impaired students. All of the participants (100%) claimed Screen reader facilitated their learning. It demonstrates how technology may significantly help the educational experience of students with impairments. However, the study also identified a challenge for visually impaired students in comprehending mathematical symbols which were not decipherable by screen readers. This highlights the need for alternative methods of presenting mathematical information to visually impaired students, such as tactile graphics or audio descriptions.

Studies have shown that visually impaired individuals face various impacts and problems in each subject and require support to overcome difficulties. Resilience is essential for

individuals to respond positively to adversity, and those with a positive attitude will respond better to problems encountered. The visually impaired students in this study showed resilience in their learning process by utilizing various strategies to overcome difficulties. The study highlights the need for appropriate support and accommodations for visually impaired students in the academic environment, including creating an inclusive campus environment and understanding their characteristics. The students expressed hope for special scholarships, a dedicated unit, and involvement in decision-making processes related to their education. (Lieberman, 2019; Fichten et al., 2018; Hersh & Johnson, 2008).

The study participants reported that they found the course materials generally understandable, except for Mathematics and Statistics, which contain mathematical symbols that are challenging for visually impaired individuals to understand. There isn't sufficient Braille writing, and there aren't plenty of media that provide visually impaired students simple access to knowledge. When they have difficulty understanding the course content, 7 (seven) out of 10 (ten) participants asked their friends first, then sought the relevant lecturer if they could not explain. Only one student immediately addressed the lecturer.

All of the participants sought online resources, such as websites, blogs, YouTube, and e-books that could be read with the Screen reader application, for course materials that weren't written in Braille. They wrote their college homework, including those needed for presentations, and asked their friends to edit the formatting. They frequently retained the information for presentation sessions, and their friends assisted them in presenting the slides. Students either read aloud to their peers what they learned from a printed book or used the Screen reader application.

Participants not only listened to the lectures, but also used Braille to take notes, recorded the lectures with a smartphone, asked a friend to explain the subject at the end of class, and recorded the lectures with a voice-note app. Additionally, they admitted that certain lecturers regularly asked about their lives at home while others provided in-depth explanations of the material being presented to assist in their comprehension. However, they said that visually impaired students have the option of taking the final exam either orally or on a computer, depending on their choices.

The outcomes of the interviews showed that there was no discrimination on campus, and the participants thought the lecturers' responses were compassionate and understanding. They anticipated that the lecturers could appreciate the unique characteristics of visually impaired students as handicapped students in order to increase communication and understanding among them. They suggested that the university create a special unit (*UKM, Unit Kegiatan Mahasiswa*) that allows visually impaired students to discuss their objectives in lectures, provide visually impaired students with special scholarships, and work to make the university an inclusive pilot campus for all of Indonesia in addition to West Java.

This research demonstrates that every person reacts differently to the difficulties they encounter. Those with an optimistic outlook will react well to the difficulties they face. Those who are blind, for instance, found it crucial to be able to overcome the difficulties they encountered in their educational endeavors. The visually impaired students in this research demonstrated their resiliency by employing a variety of tactics to get over the obstacles they faced while studying, including asking friends and teachers for assistance, using screen reader software, and utilizing internet resources.

The results of this study further emphasize how critical it is to give visually impaired students in the academic setting the proper assistance and accommodations. Due to a lack of braille resources and information-accessible media, blind or visually impaired students may struggle to learn. Emphasis was placed on the significance of developing an inclusive school community and comprehending the traits of visually impaired students. In this study, visually impaired students stated their desire for the campus administration to create a specific unit to support them, grant special scholarships for those who qualify, and include them in educational decision-making processes.

#### **D. CONCLUSION**

The study revealed that all visually impaired student participants (100%) demonstrated resilience in their academic pursuits and maintained a positive self-image (97%), despite occasional prejudicial treatment in public spaces (3%). Their resilience enabled them to persist in the learning process, aided by Screen reader applications (100%). It showed that visually impaired students possess a high level of resilience, characterized by their ability to cope with adversity and develop positive attitudes toward their situation. Despite physical challenges, visually impaired students aspire to be treated equitably and offered the same opportunities as their peers. They demonstrated a strong commitment to pursuing their education and achieving their goals.

In the long run, the research's conclusions have significant implications for policy decisions concerning access, support, and education for students with disabilities. It is crucial that educational institutions provide the necessary accommodations and support to enable visually impaired students to fully participate in the academic environment. The study provides practical and theoretical implications for educators, policymakers, and visually impaired students themselves, emphasizing the importance of promoting resilience and providing appropriate support for students with visual impairments. This can include the provision of assistive technology, accessible course materials, and alternative methods of presenting information. By addressing the challenges faced by visually impaired students, educational institutions can ensure that all students have equal opportunities to succeed. Students who are able to develop resilience may be better equipped to overcome the barriers they face and achieve their academic goals.

#### **REFERENCES**

- Barkhuizen, Gary; Benson, Phil; Chik, Alice. (2014). *Narrative Inquiry in Language Teaching and Learning Research*. New York: Routledge.
- Barnard, L., & Sloan, D. (2020). *Introduction to visual impairment: Understanding access to education for visually impaired learners*. London: Routledge.
- Bourne, R. R., Stevens, G. A., White, R. A., Smith, J. L., Flaxman, S. R., Price, H., ... & Taylor, H. R. (2013). Causes of vision loss worldwide, 1990–2010: a systematic analysis. *The lancet global health*, 1(6), e339-e349. [https://doi.org/10.1016/S2214-109X\(13\)70113-X](https://doi.org/10.1016/S2214-109X(13)70113-X)
- Clandinin, D. J., & Connelly, F. M. (2000). *Narrative Inquiry: Experience and story in qualitative research*. Jossey-Bass
- Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. Sage publications.
- Davis, L. (2013). *The end of normal: Identity in a biocultural era*. University of Michigan Press.

- Holbrook, M. C., & Koenig, A. J. (2017). *Foundations of Education: Instructional strategies for teaching children and youths with visual impairments*. American Foundation for the Blind.
- Kalyanpur, M., & Harry, B. (2019). *Resilience in the lives of people with disabilities and their families*. Cambridge University Press.
- Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child development*, 71(3), 543-562. <https://doi.org/10.1111/1467-8624.00164>
- Masten, A. S., & Tellegen, A. (2012). Resilience in developmental psychopathology: Contributions of the Project Competence Longitudinal Study. *Development and Psychopathology*, 24(2), 345-361. <https://doi.org/10.1017/S0954579412000025>
- Mertova, Patricie & Webster, Leonard. (2020). *Using Narrative Inquiry as a Research Method: An Introduction to Clinical Event Narrative Analysis in Research, Teaching and Professional Practice (2nd edition)*. New York: Routledge.
- UNESCO. (2008). Inclusive education: The way of the future. Retrieved from <https://unesdoc.unesco.org/ark:/48223/pf0000152551>.
- Windle, G., Bennett, K. M., & Noyes, J. (2011). A methodological review of resilience measurement scales. *Health and Quality of Life Outcomes*, 9(1), 1-18. <https://doi.org/10.1186/1477-7525-9-8>
- World Health Organization. (2019). Blindness and vision impairment. <https://www.who.int/news-room/fact-sheets/detail/blindness-and-visual-impairment>