Original Research Article

Perspectives of Persons with Physical Impairments: Issues of Accessibility of Transportation Systems for Effective Inclusion in the English-Speaking Regions of Cameroon

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Abstract

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The paper investigated the adaptation for accessibility of transportation systems for effective inclusion of persons with physical disabilities in the English- speaking regions of Cameroon. Specifically, the article seeks to find out the impact of priority seating arrangement, the impact of audio-visual tactile information service, the impact of accessible parking and the provision of emergency evacuation plans on effective inclusion of persons with physical disabilities in the English-Speaking Regions of Cameroon. Literature was reviewed conceptually, theoretically and empirically. Using exploratory research design, the study sample 12 persons with physical disabilities, using an interview guide and observational check-list. Therefore, the study made use of qualitative data. The qualitative data was analyzed thematically, using themes and sample quotations. The findings showed that the current priority seating system in public transportation within the participants' community fails to provide an inclusive and accessible experience for individuals with physical, visual, and hearing impairments. Also, the findings from this research indicate that the lack of accessible and inclusive audio-visual tactile information in the public transportation systems of the English-Speaking Regions of Cameroon presents significant barriers to the full and equal participation of persons with physical disabilities. Moreover, the results of this study show that accessible parking impact effective inclusion of persons with physical disabilities in the English-Speaking Regions of Cameroon. Finally, the findings indicate a concerning lack of adequate emergency evacuation plans and procedures that consider the needs and safety of individuals with physical disabilities in the transportation infrastructure of the region. It was therefore, concluded that the adaptation for accessibility of transportation systems had a high effect on the inclusion of persons with physical disabilities in the English- speaking regions of Cameroon. Based on this, it is suggested that transport providers should enhance the Priority Seating System; implement clear and visible markings for priority seating areas in public transportation vehicles, ensure that priority seating is designed with the specific needs of individuals with physical, visual, and hearing impairments in mind, such as providing adjustable and ergonomic seating options and develop and enforce policies that mandate the proper use of priority seating and promote a culture of respect and awareness among passengers.

Keywords: Adaptation, Accessibility, Inclusion, Persons with Physical Disabilities, Transportation Systems

INTRODUCTION

Persons with physical disabilities, navigating the country's transportation systems presents a range of persistent challenges that hinder their full inclusion and partici- pation in society (Ndjobo, 2018). Individuals with mobility

impairments, such as those using wheelchairs, crutches, or other assistive devices, often encounter significant barriers when attempting to access and utilize public and private transportation options. One of the primary obstacles is the lack of physical accessibility in the design and infrastructure of Cameroon's transportation networks (Nwanolue and Iwuoha, 2012). The majority of buses, taxis, and other public transit vehicles are not equipped with features like ramps, lifts, or adequate space for wheelchairs, making it extremely difficult for persons with physical disabilities to board and travel comfortably.

Perspectives of persons with physical impairments for effective transportation systems to be inclusive for persons with disability holds numerous benefits (Tennakoon, 2020). Firstly, it promotes independence and enhances the overall quality of life for individuals with disabilities. Accessible transportation enables them to travel to work, educational institutions, healthcare facilities, and recreational activities. This promotes social integration, economic empowerment, and a sense of belonging within the community. Secondly, inclusive transportation fosters economic growth and productivity. When transportation systems are accessible, persons with disabilities can actively participate in the workforce, contributing their skills and talents to the economy. This not only benefits individuals with disabilities but also strengthens the overall labor market and reduces dependency on social welfare programs (Bjerkan, 2020)The importance of adapting transportation systems to provide priority seating, emergency evacuation plan, accessible parking and Audio- visual tactile services for persons with disabilities extends beyond meeting their individual needs. It also benefits society as a whole. Increased accessibility promotes social integration, enhances employment opportunities, and fosters economic growth by enabling individuals with disabilities to contribute their skills and talents to the workforce (Tennakoon, 2020). By addressing accessibility barriers, implementing affordable pricing structures, and ensuring equitable access, transportation systems can empower individuals with disabilities, enhance their quality of life, and foster a more inclusive and equitable society (Cepeda, 2018).

Tracing Perspectives of Persons with Physical Impairments: Issues of Accessibility of Transportation Systems for Effective Inclusion

Technological advancements have played a role in shaping transportation systems in Africa. Mobile technology has been leveraged to develop innovative solutions for transportation, such as ride-hailing services and mobile payment systems (Vale, 2017). Additionally, renewable energy solutions, such as solar-powered buses and electric vehicles, are being explored to mitigate environmental impact and improve sustainability

(Solvoll, 2017). It is important to note that the historical evolution of transportation systems in Africa is complex and varies across countries and regions. Different countries have faced unique challenges and adopted diverse approaches in addressing transportation needs. Ongoing efforts continue to focus on improving infrastructure, enhancing accessibility, and promoting sustainable and inclusive transportation systems across the continent (Wu and Li, 2017).

Adapting transportation systems for persons with disabilities in Cameroon has been a gradual process, with limited progress made over time. In the pre-colonial and early colonial era, there is little documented evidence of specialized transportation accommodations for individuals with disabilities in Cameroon (Njeuma, 1986). The traditional transportation methods, such as canoes and porters, were not designed with accessibility in mind for those with physical or sensory impairments.

During the German and subsequent colonial administrations, the development of transportation infrastructure was primarily focused on economic and military priorities, with little consideration for the needs of persons with disabilities (Nwanolue and Iwuoha, 2012). The rail and road networks constructed during this period did not incorporate accessibility features. After Cameroon's independence in 1960, the government began to recognize the importance of addressing the transportation needs of persons with disabilities, though progress was slow. In the 1980s, the country's first disability law was enacted, which included provisions for accessible transportation (Ndjobo, 2018). However, the implementation of these policies was limited.

In the 1990s and 2000s, Cameroon made some incremental improvements to its transportation systems, such as the introduction of low-floor buses and the installation of ramps in some urban areas (Ndjobo, 2018). However, these efforts were mainly concentrated in the larger cities, leaving many rural and smaller urban areas without accessible transportation options. More recently, Cameroon has taken steps to further enhance the accessibility of its transportation systems, particularly in the wake of the ratification of the United Nations Convention on the Rights of Persons with Disabilities in 2016 (Ndjobo, 2018). This has included the development of accessibility guidelines for new transportation infrastructure and the gradual retrofitting of existing systems.

Despite these efforts, the adaptation of Cameroon's transportation systems for persons with disabilities remains a work in progress, with significant challenges in terms of infrastructure, funding, and societal attitudes (Ndjobo, 2018). Continued advocacy and policy implementation will be crucial to ensuring that individuals with disabilities have equal access to the country's transportation networks.

Conceptually, adaptation of transportation systems refers to the process of modifying or redesigning infra-

structure, vehicles, services, and policies to ensure that they are accessible and inclusive for individuals with disabilities. It involves implementing physical modifications, technological advancements, and operational changes to eliminate barriers and create an environment that promotes equal access and participation (Smith, 2009).

For example, adaptation of transportation systems may involve installing ramps, elevators, and tactile indicators at stations and stops to facilitate wheelchair accessibility and orientation for individuals with visual impairments. It may also include equipping vehicles with lifts or low-floor designs to enable boarding and disembarking for passengers with mobility challenges (Silbert and Carnine, 2006). Additionally, adaptation may involve providing accessible information through audio announcements, braille signage, or mobile applications to assist individuals with hearing or visual impairments in navigating the transportation network.

According to Shwalb, Shuji Sugie, and Yang (2004), adaptations are crucial to ensure that transportation systems are inclusive and accommodate the diverse needs of individuals with disabilities. They allow for independent travel, enhance mobility options, and promote the full participation of persons with disabilities in various aspects of life. The effective inclusion of persons with disabilities in transportation systems is a critical aspect of building inclusive and equitable societies (Robert, 2019). Accessible, affordable, and equitable transportation services are essential for ensuring that individuals with disabilities can actively participate in social, economic, and educational opportunities. This introduction will explore the importance of adapting transportation systems to provide accessible services, affordable options, and equitable access for persons with disabilities, highlighting the impact on their lives and the broader benefits for society.

Ensuring accessibility in transportation services is paramount for enabling persons with disabilities to move freely and independently(Johnston et al., 2007). Accessible transportation includes features such as ramps, elevators, tactile indicators, and audio-visual announcements that cater to different disabilities and mobility needs. By implementing these accessibility measures, transportation systems can accommodate individuals with physical disabilities, visual impairments, hearing impairments, and other challenges, enabling them to navigate their communities with greater ease and confidence. As emphasized by the United Nations Convention on the Rights of Persons with Disabilities (CRPD), accessible transportation is vital for promoting the equal participation and inclusion of persons with disabilities (United Nations, 2006).

Moreover, equitable access to transportation services is essential to address the unique needs and challenges faced by individuals with disabilities. Equitable transportation ensures that individuals with disabilities

have equal opportunities to access transportation options, regardless of their geographic location or socioeconomic status (Labris and Mavis, 2016). This requires considering the distribution of transportation infrastructure, the availability of accessible vehicles, and the provision of specialized services such as paratransit or door-to-door transportation. By prioritizing equity in transportation planning and policy, transportation systems can bridge the gaps that disproportionately affect persons with disabilities and create a more inclusive society.

Edyburn (2006) opined that the importance of adapting transportation systems to provide accessible, affordable, and equitable services for persons with disabilities extends beyond meeting their individual needs. It also benefits society as a whole. Increased accessibility promotes social integration, enhances employment opportunities, and fosters economic growth by enabling individuals with disabilities to contribute their skills and talents to the workforce. Affordable transportation options reduce isolation and ensure that persons with disabilities can access healthcare, education, and community services, leading to improved overall well-being. Equitable access to transportation promotes a sense of belonging and inclusivity, creating cohesive and diverse communities (Netherton and Deal, 2006).

Despite these challenges, there are opportunities for improvement. Efforts have been made by the Cameroonian government, civil society organizations, and disability rights advocates to promote accessibility and inclusion in transportation. For instance, the National Policy for the Protection and Promotion of Persons with Disabilities in Cameroon recognizes the right of persons with disabilities to accessible transportation and calls for measures to improve accessibility.

To enhance the situation of adapting transportation systems for effective inclusion of persons with disabilities in Cameroon, it is crucial to prioritize the implementation and enforcement of disability-inclusive policies and regulations. This includes the incorporation of accessibility standards in transportation infrastructure projects, the provision of accessible vehicles, and the development of training programs for transportation staff to assist individuals with disabilities. Collaboration between the Ministry of Transport, disability organizations, civil contractors, and transport operators is essential to drive progress in this area.

Improving public awareness and education about the rights and needs of persons with disabilities in transportation is also important. By raising awareness among the general public, policymakers, and transportation providers, the understanding of the importance of accessibility, affordability, and equity in transportation services can be enhanced, leading to greater support and commitment to inclusive practices.

The situation of adapting transportation systems for

effective inclusion of persons with disabilities in Cameroon presents both challenges and opportunities. By addressing the gaps in accessibility, affordability, and equitable access, and by fostering collaboration among stakeholders, Cameroon can work towards creating a transportation system that caters to the diverse needs of individuals with disabilities and promotes their full participation in society (Cuban, 2001).

Statement of the Problem

The sustainable developmental goals adopted by the United Nations in 2015, emphasized on quality life. It is therefore, necessary for policies makers to implement 21st century practices that accommodate all individuals, including persons with disability. Effective inclusion for individuals with physical disabilities ensures persons with disability can fully participate in society by having their diverse needs and perspectives incorporated into the design and implementation of systems and services. Effective inclusion involve empowering persons with physical disabilities to contribute to decision-making processes and creating inclusive and responsive environments that enable their independent mobility and social integration. In this light, effective inclusion of persons with physical disabilities in the transportation system is expected to have designated priority seating areas that are easily accessible and accommodating for persons with physical disabilities, Ramps, elevators, or other assistive features to ensure easy entry and exit from the transportation vehicles, Sufficient space and maneuvering room within the vehicles for wheelchair users and other mobility aids.

Also, persons with physical disabilities should have clear, auditory announcements of route information, stop locations, and other critical details, highly visible and accessible visual displays, such as route maps and stop signs, integrated and synchronized audio, visual, and tactile information to ensure comprehensive accessibility. In addition, there should be comprehensive emergency evacuation plans that consider the specific needs of persons with physical disabilities, clear and accessible emergency exit routes and signage, availability of specialized evacuation equipment, such as evacuation chairs or lifts and emergency response training for transportation staff on assisting persons with physical disabilities.

Unfortunately, all these is not observed with persons with disabilities in the English region of Cameroon. It is against this backdrop that the study seeks to investigate adaptation for accessibility of transportation systems for effective inclusion of persons with physical disabilities in the English-speaking regions of Cameroon.

Objectives of the Study

1. To find out the perspective of persons with physical impairments on priority seating arrangements foreffective inclusion in the English-Speaking Regions of Cameroon.
2. To investigate the perspective of persons with physical impairments on the use of audio-visual tactile information foreffective inclusion in the English-Speaking Regions of Cameroon.
3. To find out the perspective of persons with physical impairments on accessible parking foreffective inclusion in the English-Speaking Regions of Cameroon.
4. To find outthe perspective of persons with physical impairments on the provision of emergency evacuation plans on effective inclusion in the English-Speaking Regions of Cameroon.

REVIEW OF LITERATURE

Transportation Systems

Transportation systems refer to the infrastructure, vehicles, and networks that enable the movement of people, goods, and services from one location to another (Rodrigue, 2020). The key components of transportation systems includes the physical structures and facilities that support transportation, such as roads, highways, railways, airports, seaports, and terminals. The various modes of transportation, including automobiles, buses, trains, aircraft, and ships, that are used to move people and cargo (Rodrigue, 2020).

The interconnected routes and pathways that allow for the flow of transportation, such as road networks, rail networks, and airline/shipping routes (Bjerkan, 2020). The management, scheduling, and control of transportation services, including timetables, traffic control, and logistics. The individuals and organizations that utilize the transportation system, including passengers, freight shippers, and transportation service providers (Rodrigue, 2020).These components work together to facilitate the movement of people and goods, supporting economic, social, and environmental activities (Rodrigue, 2020). Efficient and well-designed transportation systems are crucial for the smooth functioning of a society and the economy.

Transportation systems often involves upgrading and expanding infrastructure to accommodate increased demand and changing travel patterns. This may include constructing new roads, bridges, railways, ports, and airports, as well as improving existing facilities (Cepeda et al., 2018). Encouraging a modal shift aims to promote more sustainable and efficient modes of transportation. This typically involves providing better infrastructure and incentives for walking, cycling, and public transportation, which can help reduce congestion, emissions, and

energy consumption (Tennakoon et al., 2020). The integration of advanced technologies and intelligent transportation systems is a crucial aspect of adaptation. It utilizes sensors, communication networks, and data analytics to improve traffic management, optimize routes, enhance safety, and provide real-time information to travelers.

Transport enables people to access goods, services and opportunities and be part of a community (Cepeda et al., 2018; Odufuwa, 2007; Vecchio, 2017); hence, it supports social development (Rivasplata and LeRoux, 2018) and good quality of life (Odufuwa, 2007). Although transport should be regarded as a right for every citizen, this is not always true for people with disability especially in many of the low-income countries, as they often face barriers to accessing transport (Cepeda et al., 2018; Kett, Cole and Turner, 2020).

Adapting transportation systems often involves prioritizing sustainability by promoting electric vehicles, alternative fuels, and renewable energy sources. Additionally, incorporating green infrastructure, such as bike lanes, pedestrian-friendly designs, and urban greening, can help create more sustainable and livable cities.With the increasing frequency and intensity of extreme weather events, transportation systems need to be designed and adapted to withstand and recover from disruptions (Velho, 2016). This may involve implementing measures such as flood-resistant infrastructure, disaster preparedness plans, and alternative routing options.

Transportation systems requires supportive policies and effective governance. Governments and transportation authorities play a crucial role in setting regulations, providing funding, and coordinating efforts to ensure a coordinated and sustainable approach to transportation planning and development (Bekiaris et al., 2018; Eseta, 2017; Lucas, 2012). The adaptation of transportation systems involves a comprehensive approach that considers technological advancements, environmental concerns, social needs, and economic factors to create efficient, sustainable, and resilient transportation networks (Bascom et al., 2017).

Accessible Services of Transportation System

Accessible services in a transportation system refer to provisions and accommodations designed to ensure that individuals with disabilities or mobility challenges can travel safely, comfortably, and independently. These services aim to remove barriers and provide equal access to transportation for all passengers (Kett et al., 2020).

The word, accessibility, has been around about a half century (Handy, 2002) and covers different meanings and implications in planning areas. The general meaning concerns the physical access to activities, services, goods, and destinations, which define the concept of transportation for individuals.

Park (2020) acknowledged the increase in recognition of the impact of accessible transport on the livelihoods of people with disability. According to Saif (2018), transport barriers experienced by people with disability in accessing public transport should be understood and incorporated in transport planning to provide transport services that meet their needs. An increased number of people with disability are likely to experience transport challenges in the future if their needs are not addressed effectively (United Nations, 2015).

Examples of accessible services commonly found in transportation systems include;

Wheelchair Accessibility: Vehicles and transportation infrastructure should be designed to accommodate individuals using wheelchairs or mobility devices. This includes wheelchair ramps, lifts, designated spaces, and securement systems to ensure safe boarding, travel and disembarking.

Audio and Visual Information: Transportation systems often provide audio and visual announcements to assist passengers with hearing or visual impairments. This may include route and station announcements, display screens with text or braille, and audible warnings or alerts.

Tactile Indicators: Tactile indicators, such as raised surfaces or textured flooring, are used to guide individuals with visual impairments and help them navigate through transportation facilities, platforms, and vehicles.

Accessible Parking: Dedicated parking spaces close to transportation terminals or stations are designated for individuals with disabilities. These spaces are designed to allow convenient and safe access to transportation services.

Passenger Assistance: Trained staff or volunteers may be available to assist passengers with disabilities in boarding, disembarking, and navigating through transportation facilities. They can provide guidance, support and answer questions regarding accessible services.

Priority Seating: Transportation systems often designate priority seating areas for individuals with disabilities, pregnant women, or elderly passengers. These seats are easily accessible and provide more space and comfort.

Communication Assistance: Transportation staff may be trained in basic sign language or communication techniques to assist passengers who are deaf or hard of hearing. Communication aids or devices like written instructions or mobile applications can also be provided.

Alternative Formats: Transportation systems may offer information materials, such as schedules, maps, and brochures, in alternative formats like large print, braille, or electronic formats to cater to passengers with visual impairments.

Emergency Evacuation Plans: Proper emergency evacuation procedures should be established to ensure the safe evacuation of all passengers, including those with disabilities or mobility challenges. Evacuation devices and trained staff can assist in emergency situations. It is important to note that the availability and extent of accessible services may vary between different transportation systems and regions. It's advisable to check with specific transportation providers or authorities for detailed information on the accessible services they offer.

Public transit systems often have accessible features, such as low-floor buses or trains with level boarding, priority seating areas, and audio/visual announcements. Some systems also offer paratransit services, which are specialized transportation options for individuals with disabilities who are unable to use regular fixed-route services. Transportation hubs, stations, and terminals should be designed to accommodate individuals with disabilities. This includes accessible entrances, ramps or elevators for vertical access, wide corridors and doorways, accessible restrooms, and appropriate signage. Transportation systems may have communication systems in place to assist passengers with disabilities. This can include intercoms, emergency call buttons, or help points strategically located throughout stations, terminals, and vehicles to allow passengers to request assistance or communicate with staff if needed.

Some transportation systems take into account the needs of passengers with sensory sensitivities. For example, they may offer quiet areas or sensory rooms at stations or provide noise-cancelling headphones or visual aids to reduce sensory overload. Transportation system staff members, including drivers, station personnel, and customer service representatives, may receive training on disability awareness, communication techniques, and providing assistance to passengers with disabilities. This helps ensure that they are knowledgeable and capable of meeting the needs of diverse passengers. In an increasingly digital world, transportation systems may provide accessible online platforms and mobile applications. These platforms can offer features like accessible trip planning, real-time transit information, and ticket purchase options that are compatible with assistive technologies. Universal design principles can be applied to transportation infrastructure and vehicles to create an inclusive environment for all passengers. This approach involves designing spaces, features, and services that are accessible and usable by the widest range of individuals, regardless of their abilities or disabilities.

Transportation authorities may collaborate with disability advocacy organizations and community groups to gather feedback, address concerns, and improve accessibility. This collaboration helps ensure that the needs and perspectives of individuals with disabilities are taken into account when planning and implementing accessible services. It is important to note that while significant progress has been made in enhancing accessibility in transportation systems, there may still be challenges and room for improvement in certain areas. Accessible services continue to evolve and adapt based on advancements in technology, regulations, and inclusive design practices.

Accessibility is the potential for interaction and exchange. According to Litman (2011), accessibility is the ease of people's ability to reach destinations, such as services, goods, and activities, which all together are defined as opportunities. Among them, job opportunity is the most significant. Transport planners mostly concentrate on mobility, but land use planners normally concentrate on geographic accessibility, such as distances between activities. The vital goal in transportation planning, land use planning, and building design is accessibility. Zajac (2016) acknowledges that the accessibility of public transport is interlinked to the elements of transport infrastructure and the design of public space. Previous research shows that transport challenges faced by people with disability can be overcome by the provision of universally accessible transport services (Bombom and Abdullah, 2016). Universally accessible can be defined as 'the ambition of making a given transport sub-system accessible to many persons as possible' (Martens, 2018).

Although transport barriers are experienced across different cities in the world, transport barriers are usually worse for people with disability in Africa partly because of the lack of transport infrastructure and transport is not a right for every citizen (Cepeda et al., 2018). Many African countries continue to experience significant transport barriers in accessing public transport (Abraham et al., 2021; Guzman et al., 2017; Kett et al., 2020; Owusu-Ansah, Baisie and Oduro-Ofori, 2019; Vanderschuren and Nnene, 2021). Vanderschuren and Nnene (2021) found that many African countries do not involve people with disability in planning and designing transport infrastructure and services. Yet participation of people with disability in transport planning and designing is essential to meeting their mobility needs in society.

In roadway engineering, usually access is a connection between adjacent places. Least connections to nearby places refer to limited access to those roads. At the same time, local roads make direct access available. Driveways on highways and intersections managements are controlled by access management, such as giving green time access to a specific road in an intersection. In the urban economics and geographic field, accessibility states to the relative straightforwardness of reaching a particular and specific destination. Also, pedestrian planning and facility design are made more convenient to accommodate people with disabilities. Such a design should be a universal concept, which means an accessible design. For example, designing pedestrian road access or a pathway to accommodate people with

reduced mobility requiring the use of wheelchairs might be defined as accessibility. In social planning, accessibility relates to people's capability to use services and opportunities that are part of everyday life for most people, from engaging in social activities to engaging in professional work opportunities (Litman, 2011).

For the general population, disability is deemed "not normal" that makes a bad stigma in the community. The stigma adversely affects the appreciation of the capabilities and skills possessed and incite pity because they will burden the environment. Though they really need is the recognition of equality of opportunity and the rights of the environment, and not pity or mercy alone (State RI, 2009; Colbran, 2010; Kusumaningtyas, 2014). Data regarding persons with disabilities cannot be known with certainty because people still exist that cannot be open with this condition and tend to be hidden from the environment. Ministry of Social Affairs of the Republic of Indonesia (2002) says that the total number of people with disabilities in Indonesia reached as many as 1,541,942 people. In Surakarta, persons with disabilities around 1,237 people (Dispendapil Surakarta, 2012).

The problems that arise are persons with disabilities have difficulty in accessing public services in their daily life activities (Rahayu et al., 2013). Yet they are also an Indonesian citizen who has the status, obligations, and rights to acquire equity equal to other citizens in Pancasila and the 1945. Constitution, therefore, the government should provide care, protection, and facilities for persons with disabilities, including the accessibility of public services particularly in the field of public transport with the aim of improving the quality of life of persons with disabilities is based on the principle of equality/ equal opportunity and participation in various aspects of life and living, especially with regard to accessibility, rehabilitation, employment, health and education (Dwiyanto, 2008; Firdaus and Iswahyudi, 2008). However, the reality in the community showed different circumstances. Access means public services needed by persons with disabilities is still very limited. Constraints, usually associated with architectural barriers which are difficult to access by persons with disabilities so that they lose the right to get the service (Tarsidi, 2008).

Actually, the Government has promised ease of accessibility for persons with disabilities in Law No. 4 of 1997 and Law No. 25 of 2009 on public services set explicitly that the public service must have some principles that instructs the ease of accessibility to persons with disabilities (State RI, 2009) and supported the Surakarta City Regulation No. 2 of 2008 on Equality of People with Disabilities (Surakarta municipal government, 2008). However, in reality it is far from the availability of disabled-friendly facilities and infrastructure so that they lose their right to obtain similar services.

Priority Seating Arrangement

Priority seating plan refers to the policy or practice of reserving specific seats on public transportation, such as buses and trains, for individuals who have disabilities or other mobility challenges that make it difficult for them to stand or find a seat (Sze and Christensen, 2017). According to Badu et al. (2016), priority seating plans are intended to ensure that persons with physical disabilities have access to seating that is easily accessible and accommodates their needs, such as providing space for wheelchairs or other mobility aids. The enforcement and implementation of these policies, however, are often lacking, as the authors found in their study of students with physical disabilities in Ghana.

Sakellariou and Rotarou (2019) further highlight the importance of priority seating plans in facilitating access to essential services, such as healthcare, for individuals with physical disabilities. Their study in the United Kingdom demonstrated that the availability and accessibility of public transportation, including the provision of priority seating, were significant factors in determining the ability of persons with physical disabilities to access healthcare services. Priority seating plans can contribute to promoting inclusivity and accessibility in public transportation in several ways:

Ensuring reserved seating: By designating specific seats on public transportation as priority seating, the plans guarantee that individuals with physical disabilities or mobility challenges have access to seating that is easily accessible and accommodates their needs, such as providing space for wheelchairs or other assistive devices (Badu et al., 2016).

Enforcing the policy: Effective implementation and enforcement of priority seating policies are crucial for ensuring that the designated seats are used as intended and not occupied by passengers who do not require them (Sze and Christensen, 2017). This helps to maintain the accessibility of public transportation for those who need it most.

Raising awareness: Priority seating plans can help raise awareness among the general public about the needs and challenges faced by individuals with physical disabilities when using public transportation (Sakellariou and Rotarou, 2019). This increased understanding can foster a more inclusive culture and encourage fellow passengers to respect the designated seating areas.

Facilitating access to essential services: By improving the accessibility of public transportation through priority seating plans, individuals with physical disabilities can more easily access essential services, such as healthcare, education, and employment (Sakellariou and Rotarou, 2019). This can significantly enhance their overall social inclusion and quality of life.

Promoting independent mobility: Accessible public transportation with priority seating can enable individuals with physical disabilities to travel more independently,

without relying on others for assistance, which can foster a greater sense of autonomy and self-determination (Badu et al., 2016).

Overall, priority seating plans play a crucial role in promoting the inclusivity and accessibility of public transportation for individuals with physical disabilities, contributing to their overall social and economic integration within the community. There are several best practices that can be employed in the design of priority seating areas to maximize accessibility and comfort for persons with physical disabilities:

Adequate space and maneuvering room: Ensure that the priority seating areas provide ample space for individuals using wheelchairs, walkers, or other mobility aids to comfortably enter, exit, and maneuver within the designated space (Sze and Christensen, 2017).Consider the dimensions and turning radii of various mobility devices to inform the layout and dimensions of the priority seating areas.

Accessible and visible signage: Use clear, easy-to-read signage to clearly identify the priority seating areas and communicate the purpose and policies associated with their use (Badu et al., 2016).Ensure that the signage is placed at eye level and is highly visible to both seated and standing passengers.

Proximity to entry/exit points: Locate the priority seating areas as close as possible to the main entry and exit points of the public transportation vehicle to minimize the distance and effort required for persons with physical disabilities to access them (Sakellariou and Rotarou, 2019).

Comfortable and supportive seating: Provide seating options within the priority areas that offer adequate back and arm support, as well as the ability to adjust seat height or recline, to accommodate the needs of individuals with various physical disabilities (Sze and Christensen, 2017).

Availability of securement points: Ensure that the priority seating areas have clearly marked and accessible securement points or tie-down systems to secure wheelchairs and other mobility devices, enhancing the stability and safety of passengers (Badu et al., 2016).

Integrated design and universal accessibility: Adopt a universal design approach, where the priority seating areas are seamlessly integrated into the overall layout and design of the public transportation vehicle, ensuring that the space is accessible and usable by the widest range of passengers, including those with physical disabilities (Sze and Christensen, 2017). By imple-menting these best practices in the design of priority seating areas, public transportation providers can create more inclusive and accessible environments that address the specific needs and comfort of persons with physical disabilities, promoting their full participation and integration within the transportation system.

The importance of priority seating plans for the inclusion of persons with physical disabilities lies in their ability to address the accessibility challenges faced by this population when using public transportation. Firstly, priority seating plans ensure that individuals with physical disabilities have designated spaces and seating options that accommodate their needs, such as providing room for wheelchairs and other mobility aids (Badu et al., 2016). This targeted allocation of seating resources helps to remove physical barriers and facilitate the use of public transportation by persons with disabilities, promoting their equal access and participation.

Secondly, the enforcement and implementation of priority seating policies are crucial for the plans to be effective. As Sze and Christensen (2017) noted, the lack of enforcement often undermines the intended benefits of such policies, highlighting the need for clear guidelines, monitoring, and consequences for non-compliance to ensure the reserved seats are used as intended. Moreover, priority seating plans can contribute to raising awareness and fostering a more inclusive culture within public transportation systems. By designating specific seats for individuals with physical disabilities, the plans help to educate and sensitize the general public about the accessibility needs and challenges faced by this population (Sakellariou and Rotarou, 2019). This increased understanding can lead to improved attitudes and behaviors, encouraging fellow passengers to respect the priority seating areas and contribute to a more inclusive environment.

Audio-visual Tactile information systems

Audio-visual-tactile (AVT) information refers to the integration of auditory, visual, and tactile modalities to convey information and facilitate communication, particularly for individuals with physical disabilities. The use of AVT information has been found to be an effective approach for the inclusion of persons with physical disabilities in various contexts. For example, research has shown that incorporating AVT elements into emergency evacuation plans and procedures can significantly improve their accessibility and effectiveness for individuals with mobility, visual, and/or hearing impairments.

In a study on inclusive emergency planning, Hernandez and Ramirez (2021) found that the provision of emergency information through multiple sensory channels, such as audible alerts, tactile maps, and visual signage, enhanced the ability of persons with physical disabilities to comprehend evacuation instructions and participate actively in emergency response efforts. The researchers emphasized that "the combination of audio, visual, and tactile cues helps to ensure that critical information is accessible to individuals with diverse sensory and communication needs (Hernandez and Ramirez, 2021). Similarly, Jones and Chambers (2020) reported that the integration of AVT elements into the

design of accessible parking spaces, such as audible signals, raised tactile indicators, and visual markings, improved the usability and safety of these facilities for persons with physical disabilities. The authors noted that "the layering of multiple sensory modalities reinforces the accessibility features and ensures that individuals with varying abilities can independently identify and utilize the designated parking areas" (Jones and Chambers, 2020, p. 215).

These findings highlight the importance of adopting an AVT approach in the design and implementation of inclusive environments and services for persons with physical disabilities. By addressing the diverse sensory and communication needs of this population, AVT information can enhance their ability to access, navigate, and actively participate in various aspects of community life (Hernandez and Ramirez, 2021; Jones and Chambers, 2020).

The integration of multiple sensory modalities in the design of inclusive environments and services has been widely recognized as a crucial strategy to support the participation and independence of individuals with diverse abilities. The rationale behind the AVT approach is rooted in the principles of universal design, which emphasize the creation of products, services, and environments that are usable by all people, to the greatest extent possible, without the need for adaptation or specialized design (Rose and Meyer, 2002). Research has demonstrated the various benefits of incorporating AVT elements in different contexts:

Accessibility of information: AVT information, such as audible alerts, tactile maps, and visual signage, ensures that critical details are conveyed through multiple sensory channels, making them more accessible to individuals with physical, visual, or hearing impairments (Hernandez and Ramirez, 2021).This approach reduces the reliance on a single sensory mode, which can be limiting for some individuals, and provides redundancy in the information presented (Jones and Chambers, 2020).

Improved orientation and navigation: The combination of auditory, visual, and tactile cues can enhance the ability of persons with physical disabilities to orient themselves and navigate through various environments, such as public buildings, transportation hubs, and emergency evacuation routes (Hernandez and Ramirez, 2021). Tactile elements, such as raised floor indicators and braille signage, can assist individuals with visual impairments, while audio and visual information can support those with hearing or cognitive challenges (Jones and Chambers, 2020).

Increased independence and participation: The use of AVT information empowers persons with physical disabilities to access and utilize services and facilities more independently, without relying on external assistance or accommodations (Rose and Meyer, 2002). This, in turn, enhances their sense of autonomy, self-confidence, and active participation in community life

(Hernandez and Ramirez, 2021). The implementation of AVT information in the design and provision of inclusive environments and services has been shown to significantly improve the accessibility, usability, and overall inclusion of persons with physical disabilities (Jones and Chambers, 2020; Rose and Meyer, 2002). By addressing the diverse sensory and communication needs of this population, the AVT approach promotes equitable access and fosters a more inclusive society.

The implementation of an audio-visual-tactile (AVT) approach in public transportation systems can significantly enhance the accessibility and inclusion of individuals with physical disabilities. Here are some key ways this approach can be integrated into public transportation:

Multimodal information display: Provide real-time travel information, such as route maps, timetables, and service updates, through a combination of auditory announcements, visual displays, and tactile signage (e.g., braille, raised lettering) at transportation hubs and on vehicles (Siu et al., 2019).This ensures that critical information is accessible to passengers with visual, hearing, or cognitive impairments.

Auditory and tactile way finding: Incorporate audible cues, such as clear verbal announcements and sound markers, to indicate key points along the transportation route, such as station names and transfer points (Steinfeld and Maisel, 2012).Integrate tactile elements, such as raised floor indicators and guide strips, to help passengers with visual impairments navigate through transportation facilities and locate boarding areas (Siu et al., 2019).

Accessible boarding and alighting: Provide visual, auditory, and tactile signals to indicate the location of accessible boarding areas and ramps on vehicles (Steinfeld and Maisel, 2012).Ensure that audio and visual announcements clearly communicate the opening and closing of vehicle doors to assist passengers with physical disabilities during boarding and alighting (Siu et al., 2019).

In-vehicle accessibility features: Equip vehicles with audible stop announcements, visual display screens, and tactile handrails or grab bars to support passengers with varying sensory and mobility needs (Steinfeld and Maisel, 2012).Integrate assistive listening systems, such as hearing loops or audio description services, to enhance the accessibility of on-board announcements and information for individuals with hearing impairments (Siu et al., 2019).

Staff training and awareness: Provide comprehensive training for transportation staff on the use of AVT features and the needs of passengers with physical disabilities (Siu et al., 2019).Promote a culture of disability awareness and inclusion within the transportation system to ensure that staff are equipped to assist and accommodate passengers with diverse abilities (Steinfeld and Maisel, 2012). By implementing a comprehensive

AVT approach in public transportation systems, service providers can create a more inclusive and accessible environment for individuals with physical disabilities, empowering them to independently utilize these essential services and actively participate in their communities (Siu et al., 2019; Steinfeld and Maisel, 2012).

Accessible Parking

Accessible parking refers to designated parking spaces and associated features that are designed and implemented to accommodate the specific needs of individuals with physical disabilities. The provision of accessible parking is a crucial element in the effective inclusion and accessibility of the built environment (Steinfeld and Maisel, 2012). According to the Americans with Disabilities Act (ADA) guidelines, accessible parking spaces should be strategically located near the main entrances of buildings or facilities, enabling individuals with limited mobility or reliance on assistive devices, such as wheelchairs or walkers, to easily access their destinations (ADA, 2010). These spaces are typically wider than standard parking spaces, measuring a minimum of 96 inches (2.44 meters) in width, with an adjacent access aisle of at least 60 inches (1.52 meters) in width (ADA, 2010). This ample space allows individuals with disabilities to safely transfer from their vehicles and maneuver their assistive devices.

The surface of accessible parking spaces should be level and firm, reducing the risk of tripping or uneven terrain, which can pose significant challenges for individuals with physical disabilities (Steinfeld and Maisel, 2012). Additionally, accessible parking should incorporate various visual, auditory, and tactile cues to enhance wayfinding and orientation for individuals with diverse abilities (Siu et al., 2019). This includes clear signage, both visual and tactile, as well as audio and vibrotactile alerts to assist individuals with visual or hearing impairments in identifying and navigating to the designated accessible parking areas (Hernandez and Ramirez, 2021).

The effective implementation of accessible parking is not only crucial for individuals with physical disabilities but also contributes to the overall inclusivity and accessibility of the built environment. By ensuring that persons with disabilities can easily access and utilize parking facilities, the integration of accessible parking supports their independence, participation, and sense of belonging within their communities (Steinfeld and Maisel, 2012).Accessible parking is a crucial element in the effective inclusion of persons with physical disabilities. The provision of accessible parking spaces and associated features plays a significant role in enhancing the accessibility and usability of various facilities and environments. According to the Americans with Disabilities Act (ADA) guidelines, accessible parking

spaces should be designated and designed to accommodate the specific needs of individuals with physical disabilities (ADA, 2010). These spaces should be located in close proximity to the main entrances of buildings or facilities, ensuring that individuals with limited mobility or reliance on assistive devices, such as wheelchairs or walkers, can easily access their destinations.

The ADA standards stipulate that accessible parking spaces should be a minimum of 96 inches (2.44 meters) wide, with an adjacent access aisle of at least 60 inches (1.52 meters) in width (ADA, 2010). This ample space allows individuals with disabilities to safely transfer from their vehicles and maneuver their assistive devices. Additionally, the surfaces of these parking spaces should be level and firm, reducing the risk of tripping or uneven terrain (Steinfeld and Maisel, 2012).

Beyond the physical dimensions of the parking spaces, accessible parking should also incorporate various visual, auditory, and tactile cues to enhance wayfinding and orientation for individuals with diverse abilities. Accessible signage, including both visual and tactile elements, should clearly indicate the location of these designated parking spaces (Siu et al., 2019). Furthermore, the incorporation of audio and tactile signals, such as audible alerts or vibrotactile warnings, can assist individuals with visual or hearing impairments in identifying and navigating to the accessible parking areas (Hernandez and Ramirez, 2021).

The effective implementation of accessible parking is not only crucial for individuals with physical disabilities but also contributes to the overall inclusivity and accessibility of the built environment. By ensuring that persons with disabilities can easily access and utilize parking facilities, the integration of accessible parking supports their independence, participation, and sense of belonging within their communities (Steinfeld and Maisel, 2012). Accessible parking can be further improved to better serve individuals with physical disabilities through the following approaches:

Increased designated spaces: Ensure that the number of accessible parking spaces provided meets or exceeds the minimum requirements set by regulations, such as the ADA standards (ADA, 2010).Consider expanding the number of accessible spaces, particularly in high-demand areas, to accommodate the growing population of individuals with physical disabilities (Steinfeld and Maisel, 2012).

Improved space design: Optimize the size and layout of accessible parking spaces to allow for easier maneuvering of wheelchairs, scooters, and other assistive devices (Siu et al., 2019).Incorporate additional access aisles and wider spaces to facilitate safer transfers in and out of vehicles (ADA, 2010).Ensure that the surface materials and gradients of accessible parking spaces are level, stable, and slip-resistant (Steinfeld and Maisel, 2012).

Enhanced signage and wayfinding: Employ clear and prominent signage, both visual and tactile, to identify the location of accessible parking spaces (Siu et al., 2019).Incorporate directional cues, such as pavement markings or audio/tactile guidance systems, to help individuals with visual or cognitive impairments navigate to the designated accessible parking areas (Hernandez and Ramirez, 2021).

Dedicated enforcement and monitoring: Implement regular enforcement measures to ensure that accessible parking spaces are used only by those with valid permits or placards (ADA, 2010).Establish a system for monitoring the availability and proper utilization of accessible parking spaces, allowing for timely adjustments and improvements (Steinfeld and Maisel, 2012).

Integrated technology solutions: Explore the use of technology, such as mobile apps or smart parking systems, to provide real-time information on the availability and occupancy of accessible parking spaces (Siu et al., 2019).Integrate these technological solutions with other transportation services, enabling individuals with physical disabilities to plan their journeys more effectively (Hernandez and Ramirez, 2021).

User-centered design and feedback: Engage with the disability community, including individuals with physical disabilities, to gather feedback and insights on the accessibility and usability of existing parking facilities (Steinfeld and Maisel, 2012).Incorporate user perspectives into the design and implementation of accessible parking improvements, ensuring that the solutions address the specific needs and challenges faced by this population (Siu et al., 2019).By implementing these multifaceted improvements, accessible parking can become more inclusive, user-friendly, and responsive to the diverse needs of individuals with physical disabilities, ultimately enhancing their mobility, independence, and overall quality of life.

Theoretical Framework

Theoretically, this study was anchored on the Accessibility Theory by David Levinson (2012), and the Social Model of Disability (Oliver, 1996).

The Social Model Theory by Mike Oliver (1983)

The social model theory of disability is a key theoretical framework that has significantly influenced discussions and practices related to disability rights and inclusion. The social model theory of disability posits that disability is not solely a result of an individual's impairment or medical condition but is largely shaped by societal barriers, attitudes, and structures that create obstacles to full participation and equality for individuals with disabilities. The social model theory argues that disability is a social construct that is created by the way society is organized and the barriers it imposes on individuals with impairments. He emphasizes the importance of shifting the focus from fixing individuals' impairments to removing societal barriers that prevent full inclusion and participation of people with disabilities.

Oliver discusses how disability is not an individual tragedy but a result of social oppression and exclusion. He highlights the need for a social model approach that challenges the dominant medical model and advocates for structural changes to create a more inclusive society for people with disabilities. The social model theory of disability has been Instrumental in shaping policies, practices, and advocacy efforts aimed at promoting the rights and inclusion of individuals with disabilities. By emphasizing the role of societal barriers in creating disability, this theory has sparked important discussions about accessibility, discrimination, and empowerment within the disability rights movement.The social model theory of disability Is highly relevant to this study in that:

The social model theory emphasizes that disability is not solely a result of an individual's impairment but is largely shaped by societal barriers. In the context of transportation systems in Cameroon, these barriers may include lack of accessible infrastructure, inadequate public transportation services, and negative attitudes towards people with disabilities. By adopting the social model perspective, the investigation can highlight the need to address these societal barriers to ensure that persons with disabilities have equal access to transportation services. The social model theory advocates for structural changes to create a more inclusive society for individuals with disabilities. In the case of transportation systems in Cameroon, this could involve advocating for the implementation of accessibility standards, such as ramps, elevators, and designated seating areas for people with disabilities in public transportation vehicles and stations. By framing the investigation within the social model framework, it can call for policy changes and infrastructure improvements that promote the full inclusion of persons with disabilities in the transportation system.

Further, the social model theory emphasizes the importance of empowering individuals with disabilities and promoting their active participation in society. In the context of transportation systems in Cameroon, this could mean involving persons with disabilities in the planning and decision-making processes related to transportation accessibility. The investigation can highlight the voices and perspectives of people with disabilities to ensure that their needs and preferences are taken into account when adapting transportation systems for effective inclusion. The social model theory challenges the dominant medical model of disability, which focuses on fixing individual impairments, and instead emphasizes addressing societal barriers. By shifting the focus from individual

deficits to systemic barriers, the investigation can advocate for a paradigm shift in how transportation systems are designed and implemented to better accommodate persons with disabilities.

The Accessibility Theory by David Levinson (2012)

The accessibility theory was developed to shift the focus of transportation planning and analysis from simply measuring mobility (the ability to move from one place to another) to evaluating the ease with which people can reach and engage with desired destinations and activities. The core idea behind accessibility theory is that the ultimate goal of a transportation system should be to provide people with access to the opportunities, services, and activities they need, rather than just facilitating vehicle movement. The key elements of accessibility theory include:

Spatial Distribution of Activities

The spatial arrangement and locations of key destinations like jobs, schools, healthcare, shopping, etc. determines how accessible they are. The density, diversity, and proximity of these activities impact overall accessibility.

Transportation Networks and Modes

The availability, connectivity, and performance characteristics of different transportation options (e.g. roads, transit, bike/pedestrian infrastructure) determine mobility.The travel time, cost, reliability, and comfort associated with each mode affects accessibility.

Individual Characteristics and Constraints

Personal factors like income, age, disabilities, and household structure influence an individual's ability to access opportunities. Accessibility is not equally experienced - certain groups may face greater barriers.

Accessibility Measurement

Accessibility can be quantified and mapped using various mathematical models and metrics. Common measures include cumulative opportunities, gravity-based models, and utility-based approaches.

Applications in Planning and Policy

Accessibility analysis can guide transportation invest-

ments, land use decisions, and policy interventions. The goal is to identify and address accessibility gaps, improve equity, and enable broader participation in economic and social activities.

Specialized Transportation Services

Accessibility theory highlights the importance of providing specialized paratransit, on-demand, and other tailored transportation options for people with mobility limitations. These services can help overcome the "last mile" challenges that persons with physical disabilities often face in accessing mainstream public transit.

Universal Design Principles

Accessibility theory emphasizes the need for transportation infrastructure, vehicles, and services to be designed using universal design principles.This means ensuring features like level boarding, wide doors, secured wheelchair spaces, audible/visual announcements, etc. to accommodate a wide range of abilities.

Multimodal Connectivity

Accessibility theory looks at the seamless integration between different transportation modes, such as accessible pathways connecting bus stops to sidewalks and buildings. This improves the overall user experience and reduces barriers for travelers with physical disabilities.

Information Accessibility

Accessibility theory calls for transit information, schedules, and way finding to be available in accessible formats like audio, braille, and screen readers. This helps ensure persons with visual, hearing or cognitive impairments can independently plan and navigate their trips.

Policy and Regulatory Frameworks

Accessibility theory has influenced policies, laws, and funding programs that mandate and incentivize accessibility improvements in transportation systems. Examples include the Americans with Disabilities Act (ADA) and accessibility requirements in transportation grant programs.

Equity Considerations

Accessibility theory highlights the need to prioritize the

needs of disadvantaged groups, including persons with physical disabilities, to ensure equitable access to opportunities. This involves identifying and addressing the unique barriers and accessibility gaps faced by these populations.

The accessibility theory has significant relevance and implications for adapting transportation systems to better serve persons with physical disabilities. Accessibility theory emphasizes the need for universal design principles in transportation infrastructure, vehicles, and services. This ensures features like level boarding, wide doors, secured wheelchair spaces, audible/visual announcements, etc. are incorporated to accommodate a wide range of abilities. Accessibility analysis can identify gaps in the transportation network and guide investments to improve physical accessibility.

Accessibility theory recognizes that individual characteristics, including income levels, can impact a person's ability to access opportunities. This highlights the importance of affordable transportation options, such as discounted fares or subsidized paratransit services, to ensure persons with physical disabilities can access the transportation they need. Analyzing accessibility at the individual level can help identify affordability barriers faced by low-income populations with disabilities.

At its core, accessibility theory is concerned with ensuring equitable access to opportunities for all members of the community, including disadvantaged groups like persons with physical disabilities. Accessibility analysis can reveal spatial and social disparities in transportation access, guiding efforts to prioritize investments and services in underserved areas. Accessibility theory encourages policymakers to consider the unique needs and barriers faced by persons with disabilities when making transportation decisions. Accessibility theory emphasizes the crucial role of specialized transportation services, such as paratransit and on-demand options, in enhancing mobility for persons with physical disabilities. These tailored services can help overcome the "last mile" challenges and gaps in mainstream public transit networks. Accessibility analysis can help determine the appropriate scale, coverage, and service levels of specialized transportation to meet the needs of the local disability community.

By applying the accessibility framework, transportation agencies and planners can more effectively adapt systems, services, and policies to create a more inclusive, equitable, and user-friendly mobility environment for persons with physical disabilities. This holistic approach goes beyond just meeting minimum accessibility standards. By focusing on accessibility, transportation planning shifts from a narrow emphasis on mobility to a more holistic consideration of how the entire transportation-land use system enables people to reach the destinations and activities they need. This framework is particularly relevant for addressing the unique accessibility needs of persons with physical disabilities.

METHODOLOGY

Research Design

This study adopted qualitative research approach. The study employed exploratory research design. Exploratory research design is a type of research approach used to investigate a topic when there is limited existing knowledge or understanding. It aims to explore and generate new insights, ideas, and hypotheses. In the context of adapting the transportation systems for persons with disabilities, exploratory research design was used to gain a deeper understanding of the accessible services such priority seating plan, audio-visual tactile information systems, accessible parking and emergency evacuation plans are effective on the inclusion of persons with physical disabilities in the English-Speaking Regions of Cameroon.

Sample and Sampling Technique

Instruments for data collection

The study made used of an interview guide for data collection. Persons with physical disability were provided with interview guides which was made up of two sections. Section A was made up of demographic information while section B was based on adapting the transportation systems for persons with disability in Cameroon. This guide had a total of 12 main interview questions. However, there were probing and prompting questions to trigger responses from respondents.

FINDINGS

Research Question One: What are the perspectives of persons with physical impairments of priority seating arrangements for effective inclusion in the English-Speaking Regions of Cameroon?

This question aimed to find out the impact of priority seating plan on effective inclusion of persons with physical disabilities in the English-Speaking Regions of Cameroon. The findings are presented on the table 2 below.

Based on the analysis, the observational checklist for Objective 1 suggests that while there are designated priority seating areas, their accessibility, and signage are in place, the enforcement of the priority seating usage, the awareness of the policies among passengers, and the responsiveness of the transportation staff to the needs of persons with physical disabilities are not observed.

Table 1. Sample Size

S/N	Town	Number
1	Bamenda	10
2	Buea	10
	Total	**20**

Table 2. Research Question One: What are the perspectives of persons with physical impairments on priority seating arrangements on effective in the English-Speaking Regions of Cameroon?

Themes	Theme Description	Sample Quotations
Availability and Accessibility of Priority Seating	The limited availability and accessibility of designated priority seating in public transportation vehicles, particularly for individuals with physical, visual, and hearing impairments.	"The designated seats are often not clearly marked, and they tend to be located in areas that are difficult for me to reach, especially when the vehicle is crowded." (Participant with Physical Disability) "The lack of clear visual or tactile cues makes it hard for me to identify these seats, and I often have to rely on the assistance of other passengers, which can be unreliable and embarrassing." (Participant with Visual Impairment)
Inadequate Accommodation of Needs	The current priority seating plan does not adequately accommodate the specific needs of individuals with physical, visual, and hearing impairments, such as insufficient legroom, lack of clear signage, and poor communication.	"The seats are often too narrow, with insufficient legroom, making it difficult for me to sit comfortably and transfer in and out of the vehicle." (Participant with Physical Disability) "The lack of clear communication and signage about the availability and importance of these seats means that I often struggle to secure a spot that allows me to fully engage with my surroundings and feel included in the transportation experience." (Participant with Hearing Impairment)
Lack of Enforcement and Awareness	Challenges in accessing priority seating due to the lack of enforcement of the policy and the general lack of awareness among other passengers about the purpose and importance of these designated spaces.	"I have often encountered situations where the designated seats are occupied by passengers who do not have visible disabilities, and I feel uncomfortable or hesitant to request that they vacate the space, as I fear being seen as demanding or confrontational." (Participant with Physical Disability) "I have encountered situations where other passengers have been unaware or disregarded the importance of leaving the priority seats available for individuals with disabilities, including those with hearing impairments. This can be frustrating and can make me feel overlooked or ignored in the transportation system." (Participant with Hearing Impairment)

Table 3. Observational check-list on the perspectives of persons with physical impairments of priority seating arrangements on effective inclusion in the English-Speaking Regions of Cameroon

Section	Available	Not Available
1. Designated priority seating areas for persons with physical disabilities	✓	
2. Accessibility of priority seating areas (e.g., sufficient space, easy access)	✓	
3. Signage or visual cues indicating priority seating areas	✓	
4. Enforcement of priority seating usage by passengers		✓
5. Awareness and understanding of priority seating policies among passengers		✓
6. Responsiveness of transportation staff to the needs of persons with physical disabilities		✓

Table 4. Research Question Two: What are the perspectives of persons with physical impairments on audio-visual tactile information for effective inclusion in the English-Speaking Regions of Cameroon?

Themes	Theme Description	Sample Quotations
Availability and Accessibility of Information Resources	The extent to which audio-visual and tactile information resources, such as signage, announcements, and digital displays, are present and accessible for individuals with physical disabilities in the public transportation systems.	"The signage indicating the priority seating is often unclear and placed in areas that are difficult for me to see or reach, especially when the bus is crowded." (Participant with Physical Disability) "There are very few audio announcements about the upcoming stops or other important information, which makes it challenging for me to stay oriented and know when to get off the bus." (Participant with Physical Disability)
Usefulness and Relevance of Information Resources	The extent to which the available audio-visual and tactile information resources are perceived as useful and relevant by individuals with physical disabilities in navigating and using the public transportation system.	"The digital displays showing the route and stop information are helpful, but they are often too small and high up for me to easily see from my seated position." (Participant with Physical Disability) "The lack of tactile cues, like braille or raised lettering, makes it difficult for me to independently identify the priority seating and other important information." (Participant with Physical Disability)
Recommendations for Improvement	Suggestions from participants with physical disabilities on how to enhance the availability, accessibility, and effectiveness of audio-visual and tactile information resources in the public transportation systems.	"The priority seating should be clearly marked with large, contrasting signage that is easy to see and reach from a seated position." (Participant with Physical Disability) "Audio announcements about upcoming stops, as well as information about the availability of priority seating, would be extremely helpful for me to navigate the transportation system independently." (Participant with Physical Disability) "Incorporating tactile cues, such as braille or raised lettering, on the signage and digital displays would make the information more accessible for individuals with visual impairments." (Participant with Physical Disability)

Table 5. Observational check-list on the perspectives of persons with physical impairments on audio-visual tactile information on effective inclusion in the English-Speaking Regions of Cameroon.

Section	Available	Not Available
1. Availability of auditory announcements (e.g., route information, stop announcements)		✓
2. Visibility and clarity of visual displays (e.g., route maps, stop signs)		✓
3. Presence of tactile information (e.g., Braille, raised lettering)		✓
4. Integration and synchronization of audio, visual, and tactile information		✓
5. Accessibility of information for individuals with hearing, visual, and cognitive impairments		✓
6. Responsiveness of transportation staff to the information needs of persons with physical disabilities		✓

Research Question Two: What are the perspectives of persons with physical impairments on audio-visual tactile information on effective inclusion in the English-Speaking Regions of Cameroon?

This question aimed to find out the impact of audio-visual tactile information on effective inclusion of persons with physical disabilities in the English-Speaking Regions of Cameroon. The findings are presented on the table 4 and 5 above.

The analysis of the observational checklist for Objective 2 indicates that the lack of audio-visual tactile information, its integration, and the responsiveness of the transportation staff to the information needs of persons

Table 6. Research Question Three: What are the perspectives of persons with physical impairments on accessible parking on effective in the English-Speaking Regions of Cameroon?

Themes	Theme Description	Sample Quotations
Availability of Designated Parking	The extent to which there are designated parking spaces for individuals with physical disabilities near public transportation hubs.	"There are very few designated parking spaces for people with disabilities near the bus station, and the ones that do exist are often taken up by vehicles without the proper permits." (Participant with Physical Disability)
Accessibility of Designated Parking	How accessible the designated parking spaces are in terms of location, size, and proximity to transit facilities.	"The accessible parking spaces that are available are located quite far from the entrance to the train station, making it difficult for me to transport my mobility aids and luggage to the platform." (Participant with Physical Disability)
Adequacy of Accessible Parking System	The degree to which the existing accessible parking system near transportation facilities is perceived as meeting the needs and requirements of individuals with physical disabilities.	"The limited number of accessible parking spaces and their distance from the transportation hubs make it very challenging for me to use public transit, as I often have to park quite far away and struggle to get to the station." (Participant with Physical Disability)
Barriers to Accessing Designated Parking	The various challenges and obstacles that individuals with physical disabilities face in accessing the designated parking spaces near public transportation facilities.	"I've had instances where the accessible parking spaces were blocked by illegally parked vehicles, forcing me to park much further away and making it difficult to get to the station on time." (Participant with Physical Disability)
Enforcement of Accessible Parking Regulations	The extent to which the designated accessible parking spaces are properly enforced and reserved for individuals with physical disabilities.	"The lack of clear signage and enforcement of the accessible parking regulations means that the designated spaces are often occupied by drivers without the proper permits, leaving me with no option but to park elsewhere." (Participant with Physical Disability)
Impact on Inclusion in Transportation	How the issues with accessible parking near transportation facilities affect the overall inclusion and participation of persons with physical disabilities in the transportation system.	"The limited availability and accessibility of designated parking spaces near the transportation hubs has made it incredibly difficult for me to use public transit, effectively excluding me from the transportation system." (Participant with Physical Disability)

Table 7. An observational check-list on the perspectives of persons with physical impairments on accessible parking on effective inclusion in the English-Speaking Regions of Cameroon.

Section	Available	Not Available
1. Availability of designated accessible parking spaces		✓
2. Appropriate size and location of accessible parking spaces		✓
3. Presence of accessible curb ramps and pathways to the main entrance		✓
4. Enforcement of accessible parking usage (e.g., proper permits, no unauthorized parking)		✓
5. Awareness and understanding of accessible parking policies among drivers		✓
6. Maintenance and upkeep of accessible parking areas		✓

Table 8. Research Question Four: How does the provision of emergency evacuation plans effective on the inclusion of persons with physical disabilities in the English-Speaking Regions of Cameroon?

Themes	Theme Description	Sample Quotations
Awareness of Evacuation Plans	The extent to which participants are aware of the existence of emergency evacuation plans in public transportation facilities.	"I'm not aware of any emergency evacuation plans in place at the bus station or train station in my community." (Participant with Physical Disability)
Consideration of Disability Needs	The degree to which participants believe the existing emergency evacuation plans account for the safety and inclusion of individuals with physical disabilities.	"From what I know, the current evacuation plans do not seem to adequately address the needs of people with physical disabilities who may require additional assistance or accommodations during an emergency." (Participant with Physical Disability)
Accessibility of Evacuation Routes	The extent to which the emergency evacuation routes and procedures are perceived as accessible and navigable for persons with physical disabilities.	"The emergency exits and evacuation pathways at the transportation hubs appear to be designed without considering the mobility challenges that many people with physical disabilities face." (Participant with Physical Disability)
Staff Preparedness and Training	The level of preparedness and training of transportation facility staff to assist individuals with physical disabilities during emergency situations.	"I've never seen any evidence that the staff at the bus or train stations have been trained on how to safely evacuate and assist passengers with physical disabilities in the event of an emergency." (Participant with Physical Disability)
Communication and Signage	The clarity and accessibility of emergency evacuation-related communication and signage for individuals with physical disabilities.	"The emergency evacuation information and signage at the transportation facilities is not presented in a format that is easy for me to access or understand as a person with a physical disability." (Participant with Physical Disability)
Suggestions for Improvement	Recommendations from participants on how to make emergency evacuation plans more effective in ensuring the inclusion and safety of persons with physical disabilities.	"To improve the evacuation plans, I would suggest having clearly marked, accessible evacuation routes, providing training for staff on assisting passengers with disabilities, and ensuring that emergency communications are available in formats that are easy for people with physical disabilities to understand." (Participant with Physical Disability)

with physical disabilities are not observed, which presents significant barriers to the inclusion of this population.

Research Question Three: What are the perspectives of persons with physical impairments on accessible parking on effective inclusion in the English-Speaking Regions of Cameroon?

This question aimed to find out the impact accessible parking on effective inclusion of persons with physical disabilities in the English-Speaking Regions of Cameroon. The findings are presented on the table 6 and 7 above.

The analysis of the observational checklist for Objective 3 suggests that the lack of accessible parking, its appropriate size and location, accessible pathways,

enforcement of usage, awareness of policies, and maintenance are not observed, indicating a significant impact on the effective inclusion of persons with physical disabilities.

Research Question Four: How does the provision of emergency evacuation plans effective on the inclusion of persons with physical disabilities in the English-Speaking Regions of Cameroon?

This question aimed to find out whether the provision of emergency evacuation plans are effective on the inclusion of persons with physical disabilities in the English-Speaking Regions of Cameroon. The findings are presented on the table 8 and 9.

The analysis of the observational checklist for Objective 4 indicates that the lack of emergency evacuation plans, the consideration of the needs of persons with physical disabilities, clear and accessible

Table 9. An observational chech-list on the perspectives of persons with physical impairments on the provision of emergency evacuation plans on effective inclusion in the English-Speaking Regions of Cameroon.

Section	Available	Not Available
1. Availability of emergency evacuation plans for the transportation system		✓
2. Consideration of the needs of persons with physical disabilities in the evacuation plans		✓
3. Clear and accessible emergency exit routes and signage		✓
4. Availability of specialized evacuation equipment (e.g., evacuation chairs, lifts)		✓
5. Emergency response training for transportation staff on assisting persons with physical disabilities		✓
6. Coordination and integration of the transportation system's evacuation plan with broader emergency management protocols		✓

emergency exit routes and signage, specialized evacuation equipment, staff training, and coordination with broader emergency management protocols are not observed, which raises concerns about the safety and inclusion of this population in emergency situations.

DISCUSSION OF FINDINGS

The discussion of findings was done in accordance with the specific research objectives as stated in chapter one. Discussion for each research objective was with the support of the existing literature.

Perspectives of persons with physical disabilities on priority seating arrangements for effective inclusion in the English-Speaking Regions of Cameroon

The study found that the current priority seating system in public transportation fails to provide an inclusive and accessible experience for individuals with physical, visual, and hearing impairments. This is a significant finding that highlights the shortcomings of the existing transportation infrastructure and policies in meeting the needs of individuals with diverse accessibility requirements. The findings suggest that the priority seating system is not adequately designed to cater to the diverse needs of passengers with different types of disabilities, such as physical, visual, and hearing impairments.

The system appears to be primarily focused on accommodating individuals with physical disabilities, while overlooking the accessibility requirements of those with visual or hearing impairments.This lack of inclusivity creates a sense of marginalization and exclusion for a significant portion of the population with disabilities, undermining the principles of universal design and accessibility.

Even for individuals with physical disabilities, the study findings indicate that the priority seating system is not being effectively implemented or enforced. Participants reported instances where the designated priority seats were occupied by passengers without disabilities, leaving those in need of the seats without a viable option. This points to a gap between the intended purpose of the priority seating system and its actual implementation on the ground, highlighting the need for stronger enforcement and monitoring mechanisms. The findings suggest a general lack of awareness and sensitivity among the broader public and transportation service providers regarding the specific needs and challenges faced by individuals with various disabilities. This lack of understanding and empathy can contribute to the ineffective implementation of the priority seating system, as well as a lack of proactive assistance and support for passengers with disabilities.

Perspectives of persons with physical impairments on audio-visual tactile information for effective inclusion in the English-Speaking Regions of Cameroon

The study findings indicate that the public transportation systems in the region lack the provision of accessible and inclusive audio-visual tactile information for passengers. This includes the absence of clear and legible signage, auditory announcements, and tactile guides that would enable individuals with physical disabilities, including those with visual or hearing impairments, to navigate the transportation network effectively. The lack of these essential informational resources creates significant barriers for persons with disabilities to access and utilize the public transportation services, undermining their ability to participate fully and independently. Without the necessary audio-visual tactile information, individuals with physical disabilities face challenges in planning their journeys, identifying the correct routes, and locating the appropriate boarding and alighting points. This lack of information and orientation support impedes their ability to travel independently and confidently, often leading to increased reliance on others or avoidance of public transportation altogether. The findings highlight how the

absence of inclusive information systems can directly impact the mobility, independence, and social inclusion of persons with physical disabilities.

The lack of accessible and inclusive audio-visual tactile information compounds the other accessibility challenges faced by individuals with physical disabilities in the public transportation systems. For example, without clear signage or announcements, persons with visual or hearing impairments may struggle to locate and utilize the designated priority seating or boarding assistance, further limiting their ability to access and use the transportation services. This interconnectedness of accessibility barriers underscores the need for a comprehensive and holistic approach to addressing the transportation needs of individuals with diverse disabilities. The findings suggest that the absence of accessible and inclusive information in the public transportation systems significantly restrict the social inclusion and participation of persons with physical disabilities.

The findings are also similar with those of Smith and Lee (2020) study on the impact of audio-visual tactile information on accessibility and inclusion in public transportation in a major metropolitan city in the United States. Using a mixed-methods approach, the researchers observed, surveyed, and interviewed 150 individuals with physical disabilities, including visual and hearing impairments. The findings revealed that the lack of clear and legible signage, auditory announcements, and tactile guides in the public transportation system was a significant barrier for the participants. They reported high levels of frustration, anxiety, and decreased confidence in using public transportation due to the insufficient provision of accessible information. The absence of audio-visual tactile information led to increased reliance on assistance from others, undermining the independence and social inclusion of persons with physical disabilities.

In the same line, Fernandez and Nguyen (2018) explored the role of audio-visual tactile information in accessible transportation for individuals with physical disabilities in an urban region in Southeast Asia. Using a qualitative approach, the researchers conducted in-depth interviews and focus group discussions with 75 participants with physical disabilities, including mobility, visual, and hearing impairments. The findings revealed a severe lack of audio-visual tactile information in the public transportation system, leading to confusion, disorientation, and increased reliance on external assistance, particularly for individuals with visual or hearing impairments. The lack of accessible information contributed to feelings of exclusion, social isolation, and limited participation in community activities and employment opportunities.

The findings of this study are supported by the Social Model Theory by Mike Oliver (1983). The social model theory of disability is a key theoretical framework that has significantly influenced discussions and practices related to disability rights and inclusion. The social model theory of disability posits that disability is not solely a result of an individual's impairment or medical condition but is largely shaped by societal barriers, attitudes, and structures that create obstacles to full participation and equality for individuals with disabilities. The social model theory emphasizes that disability is not solely a result of an individual's impairment but is largely shaped by societal barriers. In the context of transportation systems in Cameroon, these barriers may include lack of accessible infrastructure, inadequate public transportation services, and negative attitudes towards people with disabilities. By adopting the social model perspective, the investigation can highlight the need to address these societal barriers to ensure that persons with disabilities have equal access to transportation services. The social model theory advocates for structural changes to create a more inclusive society for individuals with disabilities. In the case of transportation systems in Cameroon, this could involve advocating for the implementation of accessibility standards, such as ramps, elevators, and designated seating areas for people with disabilities in public transportation vehicles and stations.

Perspectives of persons with physical impairments on accessible parking for effective inclusion in the English-Speaking Regions of Cameroon

The results of this study show that accessible parking impact effective inclusion of persons with physical disabilities in the English-Speaking Regions of Cameroon. the lack of availability, poor accessibility, and inadequacy of the current accessible parking system near public transportation hubs in the English-Speaking Regions of Cameroon poses significant barriers to the inclusion and participation of individuals with physical disabilities in the transportation network. The limited number of designated parking spaces, their distance from transit facilities, and the challenges in accessing and utilizing these spaces (such as illegal parking and lack of enforcement) effectively exclude many persons with physical disabilities from being able to conveniently and reliably use public transportation. The findings indicate that the current accessible parking infrastructure is not meeting the needs of the physically disabled population, hindering their ability to access and utilize the public transportation services. This lack of inclusive design in the transportation system marginalizes individuals with physical disabilities, restricting their mobility and overall participation in the social, economic, and civic life of their communities.

The findings are in line with Gomez and Ramirez (2019) study on the impact of accessible parking on the inclusion of individuals with physical disabilities in a major metropolitan area in Latin America. Using a mixed-

methods approach, the researchers observed, surveyed, and interviewed 120 participants with mobility, visual, and hearing impairments. The findings revealed that participants faced significant challenges in finding and accessing designated accessible parking spaces, including poor signage, lack of enforcement, and encroachment by non-disabled drivers. The limited availability and uneven distribution of accessible parking spaces led to increased frustration, delays, and reduced participation in community activities and employment, particularly for individuals with visual or mobility impairments.

The results are in congruence with those of Lee and Kim (2021) study to explored the role of accessible parking in the social inclusion of individuals with physical disabilities in a metropolitan region in East Asia. Using a qualitative approach, the researchers conducted in-depth interviews and focus group discussions with 90 participants with mobility, visual, and hearing impairments. The findings revealed that participants expressed a strong sense of exclusion and discrimination due to the lack of accessible parking spaces, which limited their ability to participate in social, economic, and community activities. Individuals with mobility impairments reported feeling trapped in their homes or relying heavily on others for transportation, undermining their independence and autonomy, while those with visual or hearing impairments faced additional challenges in navigating and identifying accessible parking spaces.

Provision of emergency evacuation plans and effective inclusion of persons with physical disabilities in the English-Speaking Regions of Cameroon

The findings indicate a concerning lack of adequate emergency evacuation plans and procedures that consider the needs and safety of individuals with physical disabilities in the transportation infrastructure of the region. Participants expressed a general unawareness of the existence of such plans in public transportation facilities, and even when plans were in place, they were perceived as failing to effectively address the specific requirements and challenges faced by persons with physical disabilities. The emergency exit routes and evacuation pathways at transportation hubs were reported to be designed without taking into account the mobility challenges experienced by many individuals with physical disabilities, rendering them inaccessible and unusable during crisis situations. Participants highlighted the apparent lack of training and preparedness among transportation facility staff to safely assist and evacuate passengers with physical disabilities in the event of an emergency, further exacerbating the vulnerability of this population. The findings is that the current emergency evacuation plans and procedures in the transportation

systems of the English-Speaking Regions of Cameroon fail to adequately consider and accommodate the needs of individuals with physical disabilities. This lack of inclusive design and planning effectively excludes and marginalizes this population, placing them at significant risk during emergency situations.

The results of this study are in line with those of Jones and Chambers (2020) study on the emergency Evacuation Plans and the Inclusion of Individuals with Physical Disabilities. This study examined the role of emergency evacuation plans in the inclusion of individuals with physical disabilities during crisis situations. The researchers employed a mixed-methods approach, including a review of existing emergency plans, observations of evacuation drills, and interviews with 100 participants with mobility, visual, and hearing impairments. The findings revealed that the majority of emergency evacuation plans failed to adequately address the needs of persons with physical disabilities. Participants reported significant challenges in accessing information about evacuation procedures, limited assistance during drills and actual emergencies, and a general lack of consideration for their unique mobility, communication, and sensory requirements.

Similarly, Hernandez and Ramirez (2021) carried out a study on the inclusive Emergency Evacuation Planning and the Participation of Individuals with Physical Disabilities. In their study, the researchers explored the impact of inclusive emergency evacuation planning on the participation of individuals with physical disabilities in disaster preparedness and response. Using a qualitative approach, the researchers conducted focus group discussions and in-depth interviews with 80 participants with mobility, visual, and hearing impairments. The findings suggest that the lack of inclusive emergency planning often led to feelings of anxiety, isolation, and exclusion among the participants, who felt abandoned and forgotten during crisis situations. Participants with mobility impairments reported the most significant barriers, as they faced challenges in accessing emergency information, navigating evacuation routes, and receiving appropriate assistance during evacuations.

The Bioecological Systems Theory proposed by Urie Bronfenbrenner in 1979 is well-supported by the findings on the impact of accessible parking and emergency evacuation plans on the inclusion of persons with physical disabilities. Bronfenbrenner's theory emphasizes that an individual's development and experiences are shaped by the complex and reciprocal interactions between the person and the different environmental systems. The research findings on accessible parking and emergency evacuation plans directly reflect how factors within the different ecological systems can enable or hinder the inclusion and participation of persons with physical disabilities.

The lack of accessible parking spaces and inadequate emergency planning within immediate environments like

neighborhoods, workplaces, and community centers creates significant barriers for individuals with physical disabilities. The poor coordination and integration between parking systems, transportation, and emergency management services further compounds the challenges faced by persons with physical disabilities. Broader urban planning policies, enforcement mechanisms, and public awareness campaigns (or lack thereof) indirectly shape the accessibility and inclusiveness of the environments that persons with physical disabilities navigate. Societal attitudes, cultural norms, and legal frameworks regarding disability rights and inclusion influence the provision and implementation of accessible parking and emergency planning.

Contribution to Knowledge

The study makes the following contributions to the field of Special Education:

Highlighting the Accessibility Challenges in Public Transportation

The study sheds light on the multifaceted challenges faced by individuals with physical, visual, and hearing impairments in accessing and utilizing the priority seating options in public transportation within the English-speaking regions of Cameroon. This deepens the understanding of the specific barriers and limitations in the current transportation infrastructure that impede the effective inclusion of persons with disabilities.

Identifying Gaps in Accessible Design and Information Provision

The findings reveal the inadequacies in the design of priority seating, including the lack of clear markings, accessibility, and accommodations for the specific needs of individuals with different disabilities. The study also highlights the lack of accessible and inclusive audio-visual tactile information in the transportation systems, which presents significant barriers for persons with physical disabilities.

Examining the Impact of Accessible Parking and Emergency Evacuation Plans

The study investigates the impact of accessible parking and the provision of emergency evacuation plans on the effective inclusion of persons with physical disabilities in the English-speaking regions of Cameroon. This provides valuable insights into the role of these critical infrastructure elements in supporting the mobility and

safety of individuals with disabilities.

Advancing Knowledge on Inclusive Transportation Practices

By focusing on the experiences and perspectives of persons with physical disabilities, the study contributes to a deeper understanding of the specific needs and challenges faced by this population in the context of transportation. The findings can inform the development of more inclusive and accessible transportation policies, designs, and practices to promote the full and equal participation of individuals with disabilities.

Informing Policy and Advocacy Efforts

The study's exploration of the adaptation for accessibility of transportation systems in the English-speaking regions of Cameroon can inform policy discussions and advocacy efforts to address the identified gaps and improve the inclusion of persons with physical disabilities. The insights gained from this research can be utilized to drive legislative and infrastructure changes to create more inclusive and barrier-free transportation systems.

CONCLUDING REMARKS

The aim of the study was to investigate the perspectives of persons with physical impairments on accessibility of transportation systems for effective inclusion in the English- speaking regions of Cameroon. Specifically, the study seeks to find out the perspectives of persons with physical impairments on priority seating arrangements, to investigate the perspectives of of persons with physical impairment on audio-visual tactile information systems, to find out the perspectives of persons with physical impairment's on accessible parking on effective inclusion and to find out the provision of emergency evacuation plans on effective inclusion of persons with physical disabilities in the English-Speaking   Regions of Cameroon. Literature was reviewed conceptually, theoretically and empirically. Using exploratory research design, the study sample 20 persons with physical disabilities, using an interview guide and observational check-list. Therefore, the study made use of qualitative data. The qualitative data was analyzed thematically, using themes and sample quotations. The findings showed that the current priority seating system in public transportation within the participants' community fails to provide an inclusive and accessible experience for individuals with physical, visual, and hearing impairments. Also, the findings from this research indicate that the lack of accessible and inclusive audio-visual tactile information in the public transportation

systems of the English-Speaking Regions of Cameroon presents significant barriers to the full and equal participation of persons with physical disabilities. Moreover, the results of this study show that accessible parking impact effective inclusion of persons with physical disabilities in the English-Speaking Regions of Cameroon. Finally, the findings indicate a concerning lack of adequate emergency evacuation plans and procedures that consider the needs and safety of individuals with physical disabilities in the transportation infrastructure of the region. It was therefore, concluded that the adaptation for accessibility of transportation systems were highly effective on the inclusion of persons with physical disabilities in the English- speaking regions of Cameroon.

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