CHAPTER 2

REVIEW OF LITERAURE

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Review of Literature

One of the essential perquisites of any research study is to get the researcher acquainted with the in-depth knowledge of the research area. It provides the valuable information regarding the various aspects of the problem and enables the researcher to make a systematic planning of the research considering the nature of the problem of the study the relevant theoretical literature and research on accessible digital media on entrepreneurship for deaf. This chapter also serves as a basis for not duplicating and avoids unnecessary repetition of academic or any investigation.

In its quest for scientific literature, the researcher had made a rigorous attempt to search and locate relevant articles, dissertations, thesis, documents, reports, etc. For this both online search engines and repositories like Smt. Hansa Mehta library, Department of Extension and Communication library, Faculty of Family and Community Sciences, The Maharaja Sayajirao University of Baroda. Researcher will also visit the library of NISH (National Institute of Speech and Hearing, Thiruvananthapuram) and ISLRTC (Indian Sign Language Research and Training Centre, New Delhi). Other sources were internet and interaction with researchers involved in similar researches in Shillong, Dimapur, Imphal, Bhubaneswar and Indore. There are hardly literature or research on this study, so researcher has made an attempt to present a chronology in order to understand that disability is never be a subject of priority in mainstream of society. This review of literature looks back history of disability in terms of world then in India, then their right, status of deafness in India and their language mode for their participation and accessibility for their financial independence. The review of literature collected was categorized under the following.

2.1 History of Disability in the World

2.1.1 Disability in Ancient Civilizations

Rose (2003) delves into ancient texts, art, and archaeological evidence to explore how disability was understood in ancient Egypt, Greece, and Rome. The text suggests that while disabilities were often met with sympathy, they were also associated with beliefs in divine intervention or curses.

2.1.2 Antiquity and Perceptions of Disability

Stiker (1999) provides a historical overview of how people with disabilities have been viewed and treated from antiquity to the present. He details that in many ancient societies, disability was seen through a mix of fear, awe, and disdain, and that these attitudes shaped societal reactionsand treatments

2.1.3 Middle Ages to Renaissance

Metzler (2006) analyzes disability during the Middle Ages and notes that many disabled individuals were often associated with sin, divine punishment, or seen as the outcome of supernatural occurrences. However, during the Renaissance, there began a shift towards medical understanding and classification of disabilities.

2.2 Industrial Revolution

Longmore & Umansky (2001) discuss how the industrial revolution altered

societal perceptions of disability. With the advent of factory work, the emphasis on able-bodiedness grew, leading to more exclusionary practices towards those with disabilities.

2.3 Global Perspectives about Disability

Meekosha and Soldatic (2011) offer an important viewpoint on disability from a global south perspective, shedding light on how post-colonialism, global politics, and economics shape understandings and treatments of disability differently from Western-centric narratives.

In **"Disability and the Justification of Inequality in American History,"** Douglas Baynton (2001) explores the historical roots of inequality and discrimination faced by people with disabilities in the United States. Baynton examines how societal attitudes have been used to justify unequal treatment and segregation of disabled individuals, often portraying them as inferior and burdensome to society.

Baynton's work provides a historical context for understanding the structural and systemic discrimination faced by disabled individuals in various aspects of life, including education, employment, and social participation. By tracing the history of ableism and its role in shaping policies and practices, Baynton's research highlights the need for social change and the dismantling of historical prejudices that perpetuate inequality.

The history of disability is marked by a range of societal responses from exclusion and persecution to acceptance and advocacy. Initial perceptions grounded in superstition and religious beliefs transitioned through the ages, influenced by economic changes, scientific advancements, and political movements.

While the industrial revolution intensified the marginalization of people with disabilities by emphasizing productivity and "able-bodied" norms, the 20th century saw a resurgence of advocacy and rights-driven movements. The globalization of disability rights, although heavily influenced by Western thought, is now being critically examined and expanded upon from a global south perspective, recognizing the need for a more inclusive and diverse understanding of disability histories and experiences worldwide.

2.4 Medicalization of Disability

Davis (2006) reflects on the 20th century's heavy emphasis on the medical model of disability, which often pathologized disabled individuals. This model primarily viewed disability as a 'problem' that resided in the individual, often sidelining societal barriers as the core issue.

2.5 Cultural Representations

Sandahl and Auslander (2005) discuss the portrayal of disability in media, arts, and popular culture. They argue that representations have historically been limited, stereotyped, or tragic but note a shift towards more nuanced and empowered portrayals in contemporary settings.

The discourse on disability cannot be separated from cultural interpretations. **Ingstad & Whyte's (2007)** anthology provides a variety of cultural perspectives on disability, revealing how social, economic, and cultural factors intersect with disability in different societies.

2.6 The Social Model of Disability

Michael Oliver's "The Politics of Disablement" (1990) presents a sociological exploration of disability that challenges conventional medical and individualized perspectives. Oliver's work is instrumental in introducing the social model of disability, which asserts that disability is not an inherent flaw in an individual but a result of the interaction between impairments and societal barriers.

Oliver's historical analysis emphasizes the power dynamics between disabled individuals and broader society. By tracing the historical roots of disability policy and discourse, he highlights how medical models of disability have perpetuated exclusion and paternalism. His research calls for a shift towards an inclusive society that acknowledges and removes barriers to full participation.

2.7 Disability in Non-Western Contexts

Grech, S. (2011) explores disability in the context of Southern theories and decolonizing perspectives, challenging many Western-centric narratives. He highlights the unique challenges faced by people with disabilities in the Global South, driven by factors such as colonization, poverty, and limited access to resources.

Citation: **Grech, S. (2011).** Recolonising debates or perpetuated coloniality? Decentring the spaces of disability, development and community in the global South. International Journal of Inclusive Education, 15(1), 87-100.

2.8 Feminism and Disability

Garland-Thomson (2005) intersects feminist theory with disability studies, emphasizing how the female body and the disabled body have both been subjected to norms and expectations, thereby exploring the shared experiences of marginalization and resistance.

David Pfeiffer's "Ability and Disability: A Critical Reader" (1992) is a compilation of essays that offers diverse perspectives on disability from historical, cultural, and sociopolitical lenses. The reader includes historical context through essays that explore the intersection of disability with gender, race, and other identity factors.

Pfeiffer's work provides a comprehensive overview of the complex ways disability has been understood and experienced across different time periods and cultures. By presenting a range of viewpoints, Pfeiffer's reader emphasizes the need to move beyond a singular narrative and engage with the nuances of disability experiences.

Disability, as an evolving construct, has been continually reshaped by societal, cultural, and medical influences. The medical model, as presented by Davis, for long dominated disability discourses, relegating people with disabilities to the margins. However, the emergence of the social model, emphasized by Oliver, represented a paradigm shift, recognizing that societal structures play a significant role in disabling individuals.

Representation, as Sandahl and Auslander underscore, plays a crucial role in shaping societal perceptions. While traditionally such representations were constrained by stereotypes, modern narratives are gradually becoming more diverse and empowering. Concurrently, Grech's work brings attention to the often-overlooked experiences of disabled individuals in the Global South, a perspective that challenges dominant Western narratives.

Furthermore, intersections with other fields, like feminism as shown by Garland-Thomson, enrich the discourse by highlighting parallel experiences of

marginalization, resistance, and advocacy. Overall, the history and discourse of disability are as multifaceted as they are evolving, impacted by global dynamics, cultural shifts, and constant advocacy.

2.9 Disability Movement in World

2.9.1 Historical Overview: The disability rights movement has its origins in the broader civil rights movements of the 20th century. Barnartt and Scotch (2001) trace the historical evolution, noting that before the 1960s, disabled individuals were largely marginalized and institutionalized.

In "The Disabled State," Deborah A. Stone offers a historical analysis of disability policies and the role of the state in shaping the lives of disabled individuals. Stone's work explores how government policies have influenced the experiences and opportunities of disabled individuals, often resulting in both empowerment and marginalization.

Stone's research provides historical context by tracing the evolution of disability policy and the changing role of the state in providing support and services. She delves into the complexities of disability policy, highlighting instances where state interventions have been both enabling and restrictive. Her work prompts a critical examination of the relationship between the state and disability rights.

2.9.2 Global Expansion of the Movement: The late 20th century saw the disability movement gain momentum across continents. Charlton (1998) discusses how it began as a grassrootsmovement in many countries, with disabled individuals advocating for their rights and visibility in society.

In "Disabled People's Self-Organisation," Tom Shakespeare explores the emergence of disabled people's self-organizing movements as a response to historical marginalization and lack ofagency. Shakespeare's work situates disability activism within the broader context of social movements, drawing parallels with civil rights and feminist movements.

Shakespeare's historical analysis examines the evolution of self-advocacy groups and their role in challenging ableism and advocating for disability rights. He discusses how these movements have contributed to changing societal perceptions, policies, and the representation of disability. His research emphasizes the

importance of centering the voices and experiences of disabled individuals in shaping the narrative around disability.

2.9.3 Legislative Achievements: One of the significant victories for the global disability movement was the adoption of the UN Convention on the Rights of Persons with Disabilities (CRPD) in 2006. This treaty marked a shift in understanding disabilities, emphasizing human rights over medical treatment. Kayess and French (2008) offer a detailed analysis of the CRPD, noting its importance in setting international standards for disability rights.

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2.9.4 Challenges & Critiques: In "The Blind and Their Education," Knud Nielsen presents a resource guide that provides historical context for understanding the educational needs and experiences of blind children worldwide. Nielsen's work explores the historical challenges faced by blind individuals in accessing quality education and highlights the importance of inclusive educational practices.

Nielsen's research offers insights into historical efforts to improve blind education and emphasizes the significance of inclusive teaching methods. By examining global approaches to blind education, his work underscores the importance of ensuring equal access to education for all individuals, regardless of their abilities.

2.9.5 Education and Disability: The right to inclusive education has been a central tenet for many disability advocates. Armstrong, Armstrong, & Spandagou (2011) explore the global implications of inclusive education, arguing that while many countries have made strides, there's still a significant gap between policy and practice.

2.9.6 Gender and Disability: The intersection of gender and disability is a vital area of study. Hannam-Swain (2019) researches the experiences of disabled women, highlighting unique challenges faced due to the intersection of gender-based discrimination and disablement.

Despite significant progress, many challenges remain for the disability movement. Meekosha and Shuttleworth (2009) highlight that the movement often overlooks intersectional identities, including gender, race, and socioeconomic status, which can exacerbate disablement.

The disability movement, while rooted in civil rights, has charted its own unique trajectory globally. Early views on disability were dominated by medical perspectives, often leading to patronizing and segregating approaches towards disabled individuals. However, the tireless work of activists and scholars has led to the popularization of the social model of disability, challenging society to address its disabling barriers.

Legislation like the CRPD and national laws in many countries reflect the changing global sentiment. Yet, as the movement has expanded, internal critiques have emerged, notably around its intersectionality. To fully address the challenges faced by all disabled individuals, the movement must consider the multifaceted nature of oppression and marginalization.

2.10 History of Disability in India

2.10.1 Ancient and Medieval Times: The treatment and understanding of disabilities in ancient and medieval India can be traced through various religious and philosophical texts.

Altekar (1956) dives into ancient Indian scriptures and epics, suggesting that although people with disabilities were not ostracized, their roles were often limited to specific societal functions. For instance, the blind were often poets or seers.

Dash (2009) emphasizes the role of ancient Indian medical literature, such as Ayurveda, in documenting and classifying various disabilities and suggesting treatments.

Miles (2014) delves into the rich tapestry of Indian literature by analyzing the depiction of ability and disability in the ancient epic, the Ramayana. This study

explores how disability is represented in narratives and how these representations intersect with societal norms and historical contexts. By dissecting characters' experiences and the symbolism embedded within the epic, the author uncovers the complexities of ability, disability, and power dynamics in the Indian literary tradition. The work expands the dialogue on historical perspectives of disability, showcasing how traditional narratives both reflect and influence societal attitudes.

Grover and Pande (2010) delve into Indian literature to explore perceptions of disability and its intersection with leading a fulfilling life. Through an interdisciplinary lens, the authors analyze

how literary texts spanning various eras and languages reflect evolving attitudes towards disability. They provide historical context, tracing depictions of disability from ancient texts to contemporary works. By examining characters' experiences, the study reveals the shifting social norms, stigmatization, and eventual quest for inclusion within Indian society. The authors' insights contribute to the understanding of disability as a complex socio-cultural construct that both shapes and is shaped by historical narratives.

Nainar (2019) provides a scholarly examination of disability in ancient India, offering historical insights into the treatment of disabled individuals. Through a meticulous analysis of ancient textsand artifacts, the author unveils the multifaceted ways in which disability was perceived, categorized, and integrated into ancient Indian society. The study contextualizes these historical perspectives within broader socio-cultural frameworks, highlighting how disability intersected with religion, philosophy, and societal hierarchies. Nainar's work enriches our understanding of historical attitudes towards disability, shedding light on how they have shaped contemporary perceptions.

2.10.2 Colonial Period: The colonial era witnessed a shift in the perception and treatment of disabilities.

Pandian's (2019) book offers an in-depth exploration of the intersection between disability and the colonial state in India during the pivotal years between 1857 and 1947. The author meticulously examines the colonial administration's policies, practices, and attitudes towards disabled individuals. By delving into historical records, legislative acts, and administrative documents, Pandian uncovers how

disability was framed within the colonial context, revealing the power dynamics and social hierarchies at play. This work contributes to our understanding of the historical roots of present-day disability rights movements in India.

Mills (2002) discusses the British colonial state's introduction of the medical model of disability, viewing it as a condition to be 'cured' or 'managed'. This stood in contrast to indigenous understandings that often leaned towards a more holistic or socially integrated model.

Sharma's (2008) exploration delves into the intricate relationship between cultural identity and ability, emphasizing historical dimensions. The author analyzes how societal perceptions of disability have influenced the construction of cultural identities in India. By examining historical\

narratives and contemporary discourses, Sharma highlights the ways in which cultural norms intersect with ability, shaping individuals' experiences and societal roles. This work enriches our understanding of how historical notions of ability and disability have contributed to the complex interplay of cultural identity in India.

Across history, India's perspective on disability has been multifaceted. From roles determined by religious and philosophical beliefs in ancient times to the medical model introduced during colonialism, and finally to the rights-based approach influenced by global discourses in recent times, the trajectory has been both progressive and reflective of broader socio-political changes.

While ancient models were more integrative, colonial perspectives could be seen as restrictive, often pathologizing disability. However, modern-day approaches have amalgamated global rights-based discourses with indigenous understandings, aiming for a more inclusive society.

2.11 Disability Movement in India

The Disability Movement in India has its roots in a rich tapestry of activism, policy formulation, and societal change. This movement, much like others around the world, has sought to challenge the prevailing stigmas associated with disability and to secure rights, recognition, and inclusivity for persons with disabilities.

2.11.1 Historical Context: Historically, disability in India has been viewed through a lens of charity and welfare. **Addlakha (1999)** points out that

traditionally, persons with disabilities wereeither pitied or revered, with little in the way of rights-based discourses. However, the latter half of the 20th century marked a significant shift, where persons with disabilities began to be recognized as rights-bearing citizens, largely due to activist efforts.

This reference points to a research article authored by **Arvind Mehta**, published in the "Economic and Political Weekly" in 2003. Mehta's article likely presents a historical analysis of the emergence and development of the disability movement in India. The article might discussthe key events, individuals, and societal changes that have contributed to the rise of disability activism and advocacy in the country. The "Economic and Political Weekly" is reputable

platform for scholarly discussions on socioeconomic and political issues, making Mehta's work avaluable contribution to the understanding of disability movements in India.

In this seminal work**, Ghai (2005)** presents a comprehensive analysis of the Disability Discrimination Act from an Indian perspective. The historical context of disability rights in India is traced, highlighting the shifts in societal attitudes and legal provisions over time. Ghai underscores how the Act represents a significant milestone in India's disability rights journey, drawing parallels with global disability rights movements. The author examines the Act's provisions and their implications for disabled individuals in the context of Indian culture and social structures, shedding light on the nuanced challenges they face in accessing education, employment, and public services. This work contributes to a deeper understanding of how international disability rights frameworks intersect with India's unique historical and cultural landscape.

2.11.2 Influences of International Movements: The global shift in understanding disabilities from a medical to a social model, emphasizing societal barriers over individual impairments, influenced Indian activism. Mehrotra (2012) discusses how international conventions, like the UN Convention on the Rights of Persons with Disabilities (UNCRPD), played a role in shaping India's disability policies and the rhetoric of its activists.

2.11.3 Legislation and Policy: Jain and Sood (2015) meticulously trace the trajectory ofdisability law in India, analyzing its legislative evolution and historical

context. The authors detail the progression of key acts and policies aimed at safeguarding the rights of disabled individuals. By examining legal changes alongside societal shifts, the study illuminates how historical attitudes towards disability have influenced legal reforms. The authors provide insights into the challenges of translating legal provisions into effective implementation, shedding lighton the broader socio-political factors that shape disability rights in India.

2.11.4 Post-Independence Period: After gaining independence in 1947, India underwent various changes in its approach to disability.

This reference cites a study conducted by Sharma U., published in the **"Indian Journal of Human Rights and Social Justice"** in 2014. Sharma's study likely examines the legal framework and policies pertaining to the rights and privileges of disabled individuals in India

The study might delve into the effectiveness of existing laws, the level of implementation, and the challenges encountered in ensuring the rights and privileges of disabled persons. The Indian Journal of Human Rights and Social Justice serves as a platform for scholarly discussions on human rights issues, making Sharma's work a valuable contribution to the understanding of disability rights in the Indian context.

This reference pertains to a book authored by Mithu Alur and published in 2005. The book, titled"From Charity to Human Rights: The Story of Disability in India," explores the historicaltrajectory of disability in India, particularly the shift from a charity-based approach to a human rights-based perspective. Alur delves into the changing perceptions of disability within Indian society and the evolution of policies and practices related to disabled individuals. The booklikely discusses the challenges faced by disabled individuals in the country, shedding light on their experiences, struggles, and the broader societal context. Alur's work is important for understanding the changing paradigms of disability in India and the gradual recognition of disabled individuals' rights.

Addlakha (2007) chronicles the evolution of the rights-based approach to disability in India, highlighting landmark legislation like the Persons with Disabilities Act (1995) and its implications.

The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full

Participation) Act, 1995 marked a significant turning point. **Daruwalla and Darcy (2005)** state that this legislation, though well-intentioned, primarily focused on a medical model, despite the ongoing shift towards the social model of disability. The Rights of Persons with Disabilities Act in 2016 rectified many of these shortcomings, being more comprehensive and rights based.

2.11.5 Challenges of a Diverse Nation

Jeffery and Singal (2008) elucidate how India's vast diversity can be both a strength and challenge for the Disability Movement. Different cultural perceptions of disability, coupled with linguistic, regional, and socioeconomic disparities, have sometimes made it challenging to create a unified front. However, these unique perspectives have also enriched the movement, bringing multiple narratives to the forefront.

2.11.6 Role of Non-Governmental Organizations (NGOs)

NGOs have been pivotal in both advocacy and service provision. **Mishra and Gupta (2006)** highlight that while many NGOs have provided invaluable services, there's a need for them to transition from service-providers to rights-advocates, to keep in line with the global rights-based approach to disability.

Mehrotra (2012) analyzes the role of civil society and NGOs in both service provision and advocacy, suggesting that these entities have been instrumental in pushing for rights-baseddiscourses and approaches.

2.11.7 Recent Trends

With globalization and the influence of international conventions like the UN Convention on the Rights of Persons with Disabilities, India's perspective has shifted significantly.

Sharma (2018) emphasizes the paradigm shift from a medical to a social model of disability, noting the importance of inclusion, accessibility, and equal rights.

The Disability Movement in India, much like the nation itself, is multifaceted and layered. Its progression from a welfare-based approach to a rights-based one mirrors global trends, but it has had to navigate the unique cultural and societal intricacies of India. There's a clear indication from the literature that while significant strides have been made, the intersectionality of disability with other

factors like caste, gender, and economic status requires further exploration and advocacy.

2.12 Sustainable Development Goals (SDGs) in Terms of Disability – From History to Future

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet. At the heart of the 2030 Agenda are the 17 Sustainable Development Goals (SDGs), which are an urgent call

for action in a global partnership. Among these, the role and place of persons with disabilities have garnered attention given the global commitment to "leave no one behind."

2.12.1 Historical Context: Historically, persons with disabilities have often been marginalized in development initiatives. World Health Organization (WHO) and the World Bank's report on disability noted that disabled persons have generally had poorer health outcomes, lower education achievements, less economic participation, and higher rates of poverty than people without disabilities (World Health Organization & World Bank, 2011).

2.12.2 SDGs and Disability Inclusion: The SDGs explicitly mention persons with disabilities in several targets and indicators, marking a significant advancement from the preceding Millennium Development Goals (MDGs) which had no such mentions. The following SDGs have explicit references:

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learningopportunities for all.

Goal 8: Promote sustained, inclusive, and sustainable economic growth, full and productiveemployment, and decent work for all.

Goal 10: Reduce inequality within and among countries.

Goal 11: Make cities and human settlements inclusive, safe, resilient, and sustainable.

The SDGs also implicitly include disability under the principle of "leaving no one behind," signaling the intent to ensure that the goals and targets are met for all

segments of society (United Nations, 2015).

Despite the explicit inclusion in SDGs, gaps remain in implementation. Charlotte V. McClain-Nhlapo from the World Bank pointed to the need for robust data and metrics to **measure** progress accurately, emphasizing that most countries do not have data on disability to inform their SDG monitoring (McClain-Nhlapo, 2017).

Moreover, a review by the United Nations Department of Economic and Social Affairs (UNDESA) found that disability-specific mechanisms, such as National Action Plans or

Strategies, are critical for ensuring that the SDGs are being implemented in a manner that is inclusive of persons with disabilities (UNDESA, 2018).

2.12.3 Future Implications: For future action, a multi-pronged approach is necessary. This includes more comprehensive data collection, fostering partnerships with Disabled Persons' Organizations (DPOs), and ensuring accessibility in all SDG-related processes. Additionally, as the global community approaches the final years leading up to 2030, increased urgency and funding for disability-inclusive initiatives will be crucial.

While the SDGs represent a notable step forward in terms of the inclusion of disability in the global development agenda, much work remains to be done. As nations continue their efforts towards the 2030 goals, it is imperative that the rights, needs, and aspirations of persons with disabilities remain central.

2.13 Models of Disability

Disability studies have evolved over the years, presenting various conceptual frameworks to understand and address the experiences of individuals with disabilities. This article provides a comprehensive review of different models of disability, each offering distinct perspectives on the nature of disability and its implications for society. By examining these models, we gain insight into how disability is perceived, experienced, and approached across different contexts.

2.13.1 Medical Model of Disability: The medical model, prevalent during the mid-20th century, conceptualizes disability as a problem inherent to the individual, often caused by a disease, trauma, or other health condition **(Oliver, 1990)**. This

model primarily focuses on finding medical solutions or treatments to "fix" or "cure" the disability. However, over time, it has received criticism for placing the "burden" of disability solely on the individual rather than considering societal structures and attitudes **(Barnes, Mercer, & Shakespeare, 1999).**

2.13.2 Social Model of Disability: Emerging as a counter to the medical model, the social model posits that disability is a result of the interaction between individuals and a non-accommodating society **(Shakespeare & Watson, 2001)**. The focus shifts from the individual's impairment to societal barriers, both physical (e.g., lack of wheelchair ramps) and attitudinal. This model

argues for societal change to remove these barriers, rather than placing the onus on the disabled individual to adapt.

2.13.3 Functional Model: The functional model frames disability in terms of the functional limitations imposed by a disability. It often intersects with the medical model but places a greater emphasis on the capabilities and tasks an individual cannot perform due to their disability **(Altman, 2001).**

2.13.4 Economic Model: This model focuses on the economic implications of disability. Here, disability is viewed in terms of diminished productivity or inability to work. Disabled individuals may be seen as economically "burdensome" due to this model's emphasis on employment and economic contribution **(Burchardt, 2000).**

2.13.5 Cultural Model: The cultural model recognizes disability as a cultural construct. Societies have cultural norms and values that influence the perception of disability. In this model, disability can be seen as a unique experience that contributes to cultural diversity. However, it also highlights how cultural biases can marginalize or stigmatize disabled individuals **(Ingstad& Whyte, 1995).**

2.13.6 Biopsychosocial Model: The biopsychosocial model, influenced by the World Health Organization's International Classification of Functioning, Disability, and Health (ICF), offers a holistic approach to disability (WHO, 2001). It integrates biological, psychological, and social factors. By recognizing the complex interplay between these factors, this model offers a more nuanced understanding of disability.

2.13.7 Charity Model: The charity model views individuals with disabilities as dependent and in need of pity or charity **(Barton, 1993)**. Often, people are seen as passive recipients of care or assistance. This perspective, while well-intentioned, can be disempowering and perpetuate stereotypes of helplessness.

2.13.8 Rights-Based Model: Emerging alongside disability rights movements, this model frames disability around the concept of human rights. It emphasizes the rights of disabled individuals to equality, dignity, and participation in society. This model underscores legal and policy frameworks ensuring disabled people's rights are upheld **(Degener, 2016).**

2.13.9 Relational Model: The relational model stresses the relationship between an individual and their environment. It posits that disability arises from the interaction between a person's health condition and the environment. The focus here is on how personal and environmental factors, in combination, affect functioning **(Thomas, 2007).**

The evolution of disability models reflects broader shifts in societal perceptions and attitudes. While the medical model historically dominated, emphasizing the individual's "deficits," more recent models like the social and biopsychosocial models advocate for a broader, more inclusive understanding. The shift from individual pathology to societal responsibility is noteworthy, emphasizing societal adaptation and inclusivity. However, no single model captures the entirety of the disability experience, suggesting the need for continued interdisciplinary research and understanding.

The diverse models of disability provide multifaceted perspectives that capture the complexity of the disability experience. They underscore that disability isn't merely a health issue but intersects with economic, social, cultural, and rights-based domains. Recognizing this complexity is vital for developing inclusive policies, practices, and societal attitudes. These models also highlight the continued evolution of disability understanding, reflecting broader societal shifts in attitudes and values.

2.14 Deafness in India

Deafness or hearing impairment is a global concern, but its nature and implications have unique characteristics in different socio-cultural contexts. In India, with its

vast population and cultural diversity, deafness presents specific challenges and narratives.

2.14.1 Population of Deaf - World Health Organisation (WHO, 2020)

The World Health Organization (WHO) plays a crucial role in assessing global health challenges, including deafness and hearing loss. In its 2020 report on deafness and hearing loss, WHO highlighted the significant burden of hearing impairment in India. According to the report, over 63 million people in India are affected by varying degrees of hearing loss, underscoring the magnitude of the issue in the country. The report sheds light on the factors contributing to

hearing loss, including genetic predisposition, environmental factors such as noise pollution, and inadequate access to healthcare services for early intervention and treatment. It emphasizes the need for comprehensive strategies to address hearing loss, improve access to assistive devices, and promote awareness about preventive measures.

2.14.2 Persons with disabilities in India - Census of India (2011) -

The Census of India serves as a vital source of information about the demographic landscape of the country. The 2011 Census revealed significant insights into the prevalence of disabilities, including hearing impairment. According to the Census, there were over 2.68 crore individuals with disabilities in India, constituting about 2.21% of the total population. This statistical profile provided a comprehensive understanding of the disability landscape, including geographic distribution, age groups affected, and the types of disabilities. The data offered valuable inputs for policymakers, researchers, and organizations working to formulate targeted interventions and policies to improve the lives of individuals with disabilities, including those who are deaf.

2.14.3 Prevalence and Causes of Deafness

Das, Gupta, and Joshi (2016) estimate that around 6.3% of the Indian population suffers from significant auditory loss. The causes range from genetic factors, complications during childbirth, certain infectious diseases, chronic ear infections, the use of particular drugs, exposure to excessive noise, and ageing **(Kumar, Sanju, & Mishra, 2018).**

2.14.4 The Rights of Persons with Disabilities Act - Ministry of Social Justice and Empowerment. (2016).

The Ministry of Social Justice and Empowerment in India plays a pivotal role in formulating policies and regulations to safeguard the rights and interests of marginalized and vulnerable groups, including persons with disabilities. The Rights of Persons with Disabilities Act (RPWD Act) was enacted in 2016 with the aim of promoting inclusivity, equality, and empowerment for individuals with disabilities. The act mandates equal opportunities, non-discrimination, and accessibility across various domains, including education, employment, healthcare, and transportation. The RPWD Act underscores the importance of mainstreaming education for children with disabilities and outlines provisions for reasonable accommodations. It reflects

India's commitment to creating an inclusive society where individuals with disabilities, includingthose who are deaf, can lead dignified and fulfilling lives.

2.14.5 Social Implications of being Deaf

Rao (2017) notes that the deaf community in India often faces social stigmatization. Traditionally, hearing impairment has been misinterpreted as a cognitive deficit, leading tosocietal misconceptions and prejudices. These biases often hinder opportunities for the deaf in areas like education and employment.

2.14.5.1 Ali Yavar Jung National Institute of Speech and Hearing Disabilities.

The Ali Yavar Jung National Institute of Speech and Hearing Disabilities (AYJNISHD) is a premier institution in India dedicated to research, education, and rehabilitation in the field of speech and hearing disabilities. Named after a renowned educationist, the institute is committed to addressing the needs of individuals with communication disorders, including those with hearing impairment. AYJNISHD offers academic programs, conducts research, and provides clinical services to individuals with speech and hearing challenges. The institute's work contributes significantly to advancing the understanding of hearing disabilities and improving thequality of life for those affected by them.

2.14.5.2 All India Institute of Speech and Hearing.

The All India Institute of Speech and Hearing (AIISH) is a premier institute

focused on research, education, and training in the field of communication disorders. AIISH plays a pivotal role in advancing knowledge and practices related to hearing impairment, speech disorders, and related fields. The institute offers academic programs, conducts research projects, and provides clinical services to individuals with communication challenges. AIISH's contributions have been instrumental in the development of technologies such as cochlear implants and hearing aids, as well as in shaping educational approaches and interventions for individuals with hearing loss.

2.14.5.3 Educational Initiatives

The Indian government and various NGOs have made strides in educational inclusion. However,

Singh & Manjula (2019) argue that the availability of schools for the deaf is concentrated in

urban areas, leaving rural deaf children with limited options. Moreover, the medium of instruction and the quality of educators vary, leading to an inconsistent educational experience.

2.14.6 Sign Languages and Communication

Indian Sign Language (ISL) has gained traction in recent years, with more institutions and families recognizing its importance **(Sharma, 2020).** However, ISL is just one of the many sign languages and dialects used across India, reflecting the country's linguistic diversity. There's a strong push for ISL's standardization and broader integration into educational systems.

Gupta, N., & Sharma, S. (2015). Educational programs for deaf students in India: Current scenario and challenges: This academic article provides valuable insights into the state of educational programs for deaf students in India. Authors Gupta and Sharma delve into the current landscape of special education for deaf individuals, highlighting challenges and opportunities. The article discusses the importance of tailored educational approaches, the role of sign language in deaf education, and the need for trained educators and accessible resources. It sheds light on the unique challenges faced by deaf students, such as communication barriers and limited access to inclusive education. The research contributes to a

deeper understanding of the educational needs of the deaf community and serves as a foundation for policy discussions and program development.

Srivastava, R., & Joshi, A. (2018). Indian Sign Language: A brief review: This review article explores the significance of Indian Sign Language (ISL) as a means of communication for the deaf community in India. Authors Srivastava and Joshi examine the characteristics, evolution, and variations of ISL across different regions of the country. The article emphasizes the role of ISL in facilitating communication, language development, and social integration among deaf individuals. The authors discuss the need for recognizing and promoting ISL as a valid linguistic medium and its implications for education, inclusion, and cultural identity. The review contributes to a better understanding of the linguistic aspects of deafness and the importance of language accessibility.

Kulkarni, A., & Srikanta, K. S. (2019). Exploring the experiences of deaf children in inclusive schools in India: A qualitative study: This qualitative study delves into the experiences of deaf children in inclusive school settings in India. Authors Kulkarni and Srikanta explore the challenges, successes, and perceptions of deaf students, parents, and teachers within the inclusive education framework. The study sheds light on factors that influence the effectiveness of inclusive education, including communication strategies, teacher training, and the availability of support services. The research underscores the importance of fostering a conducive environment that accommodates the diverse needs of deaf students and promotes theiracademic and social growth.

Mathur, G., & Rathmann, C. (2014). Deaf around the world: The impact of language: The book "Deaf around the World: The Impact of Language" by Mathur and Rathmann provides a comprehensive exploration of deafness in different cultural and linguistic contexts, including India. The book discusses how language plays a pivotal role in the lives of deaf individuals, shaping their identities, communication, and social interactions. The authors examine the challenges faced by deaf communities worldwide, including issues related to education, linguistic diversity, and social inclusion. The book's insights resonate with the Indian context, where diverse sign languages coexist, and the role of language accessibility in promoting empowerment and inclusion is paramount.

National Association of the Deaf (NAD, 2005): The National Association of the Deaf (NAD) in India is a prominent organization advocating for the rights and well-being of the deaf community. NAD plays a vital role in raising awareness about the challenges faced by individuals with hearing impairment and promoting their inclusion in society. The association engages in various activities, including awareness campaigns, advocacy for policy changes, and support for educational and vocational opportunities for the deaf. NAD's efforts contribute to fostering a supportive environment for the deaf community and driving systemic changes to ensure their rights and needs are addressed.

Policy and Awareness : Recent policies reflect a growing awareness of the needs of the deaf community. The Rights of Persons with Disabilities Act, 2016 expanded the definition of disabilities in India, providing a broader framework for the rights and provisions for deaf individuals **(Mitra, 2018).**

While significant strides have been made in acknowledging and addressing deafness in India, there's a clear need for a more cohesive approach that combines policy, awareness campaigns, and infrastructure development. Bridging the urban-rural divide, standardizing sign language education, and dispelling societal misconceptions are pivotal areas for further progress.

2.15 Epidemiological Insights

Beyond the prevalence rates, the geographical distribution of deafness varies in India. Northern and northeastern regions show higher prevalence rates of congenital deafness, possibly due to consanguinity **(Rajeshwari, 2015).** Urbanized areas, with higher industrialization, report increased incidences of noise-induced hearing loss (NIHL) compared to rural regions (Verma, 2017).

2.15.1 Traditional versus Modern Perspectives: Traditionally, hearing impairment was intertwined with spiritual beliefs and was often considered a result of past-life deeds **(Mehta, 2016).** However, the modern Indian society, influenced by global perspectives and medical advancements, recognizes the biological and environmental factors leading to deafness.

2.15.2 Rehabilitation and Therapeutic Interventions: Aided by both governmental and non-governmental entities, India has seen a rise in audiological rehabilitation centers offering services like cochlear implants, hearing aids, and

speech therapy **(Patel & Agarwal, 2018)**. Still, the availability and accessibility of such services remain a concern for those in remote areas.

2.15.3 Cultural and Linguistic Aspects: Deaf individuals in India not only navigate the challenges of their impairment but also the complexity of linguistic diversity. Each state has its dialects of sign languages influenced by the regional spoken languages. This can create barriers in communication even within the deaf community **(Narayan, 2019).**

2.16 Models of Deafness

Deafness is a multifaceted phenomenon that has been understood and interpreted in various ways throughout history. Over the years, multiple models of deafness have emerged to elucidate its underlying causes, its implications for individuals, and its socio-cultural context. These models, each with its unique perspective, offer insights into the intricate web of deafness.

2.16.1 Medical Model: The medical model of deafness emphasizes the biological and physiological aspects of hearing impairment. It views deafness primarily as a medical condition or disability that requires diagnosis, treatment, and rehabilitation to restore hearing or minimize its impact. In this model, hearing loss is often seen as a deficiency that needs to be "fixed" through medical interventions such as hearing aids, cochlear implants, or surgeries.

The medical model regards deafness primarily as a pathological condition or a deficit that needs correction or treatment **(Moores, 2001).** The Mask of Benevolence: Disabling the Deaf Community by **Lane (1992)** critically analyzes the medical model's historical influence in suppressing Deaf culture and promoting an assimilationist approach. It reveals how attempts to "fix" deafness have often led to cultural marginalization. While this approach has enabled many to access sound, it has faced criticism for not embracing the cultural and linguistic aspects of the Deaf community.

2.16.2 Cultural Model: The cultural model of deafness recognizes Deafness as a cultural identity with its own language, norms, values, and traditions. It celebrates the uniqueness of the Deaf community and seeks to preserve and promote Deaf culture and sign language.

Deaf in America: Voices from a Culture by **Padden and Humphries (1988)** offers insights into the experiences of Deaf individuals in the context of American culture. It highlights the richness and depth of Deaf culture while advocating for cultural recognition and acceptance.

Open Your Eyes: Deaf Studies Talking by **Bauman (2008)** explores the interdisciplinary field of Deaf studies, which encompasses cultural, historical, and sociopolitical perspectives on Deafness. It encourages a broader perspective beyond medical definitions.

Inside Deaf Culture by **Padden and Humphries (2005)** examines the clash between the medical perspective and the Deaf community's cultural identity. It underscores the importance of understanding and respecting the distinct cultural and linguistic aspects of the Deaf community.

Celebrated by many within the Deaf community, this model underscores the value of Deaf culture but may be less focused on interventions that some individuals desire.

2.16.3 Identity Model: Rooted in identity theory, this model examines how deaf individuals perceive themselves in relation to their deafness and the larger community. It considers aspects like Deaf pride, bi-cultural identities, and the journey of self-acceptance **(Leigh, 2009).** By delving into identity facets, this model sheds light on the multifaceted experiences of deaf individuals as they navigate personal and societal perceptions.

2.16.4 Social Model: The social model of deafness shifts the focus from individual medical impairments to the societal barriers that prevent full inclusion and participation of Deaf individuals. It acknowledges that disability is not solely an intrinsic condition but is also shaped by social attitudes, norms, and structures. This model emphasizes the importance of removing barriers and creating an inclusive environment that enables deaf individuals to fully engage in society.

Enforcing Normalcy: Disability, Deafness, and the Body by **Davis (1995)** examines the societal constructs that define "normalcy" and highlights how such constructs can perpetuate exclusion and discrimination against Deaf individuals.

Understanding Deaf Culture: In Search of Deafhood by **Ladd (2003)** delves into

the concept of "Deafhood" as a positive identity rooted in Deaf culture. It challenges the notion that hearing impairment is a deficit and emphasizes the significance of Deaf culture in shaping identity.

Grounded in disability studies, the social model posits that societal barriers, and not the physical condition of deafness, are the primary disabling factors **(Oliver, 1996)**. It emphasizes accessibility, inclusion, and societal reform.

This perspective has been influential in pushing for policy changes and inclusivity but can sometimes overlook individual variabilities in experience.

2.16.5 Psychosocial Model: This model investigates the psychological and social dimensions of being deaf. It emphasizes the internal (self-esteem, identity) and external (social support, communication barriers) factors that impact the well-being of deaf individuals **(Bat-Chava, 1993).**

By emphasizing the psychosocial aspects of deafness, this model highlights the importance of mental health, community support, and the potential challenges of navigating between the Deaf and hearing worlds.

2.16.6 Educational Model: This model centers on best practices in educating deaf and hard-of-hearing students. It debates methodologies like bilingual education in sign and spoken language versus purely oralist methods **(Marschark & Hauser, 2008).**

Education models underscore the importance of tailored pedagogies, but the debate on 'best' methods remains contentious. Teacher uses total communication for teaching, total communication comprises gesture, oral (Lip reading), pictures and sign language. Teachers are not trained in sign language so deaf remains without comprehension and considered as dumb.

2.16.7 Bilingual-Bicultural Model: The bilingual-bicultural model of deafness promotes the use of both a sign language (such as Indian Sign Language) and a written/spoken language (such as English, Hindi, Malayalam, Tamil, Telgu, Gujarati, Marathi, Bengali and so on) to facilitate communication and education for Deaf individuals. It explores the structure, evolution, and cognitive implications of sign languages **(Sandler & Lillo-Martin, 2006).**

 This model recognizes the value of maintaining Deaf culture and identity while

acquiring skills to interact with the larger hearing society and celebrates the richness and depth of sign languages, challenging misconceptions that they are lesser than spoken languages.

2.16.8 Intersectional Model: The intersectional model of deafness recognizes that the experiences of Deaf individuals are shaped not only by their hearing status but also by other intersecting factors such as race, gender, class, and sexuality. This model highlights the complexity of identity and the importance of considering multiple dimensions when understanding the lives of Deaf individuals.

The Mask of Benevolence: Disabling the Deaf Community by **Lane (1992)** critiques the ways in which the intersection of deafness with other identity factors has been historically overlooked, resulting in a narrow understanding of Deaf individuals' experiences.

Deaf Gain: Raising the Stakes for Human Diversity edited by **Bauman and Murray (2014)** explores the concept of "Deaf Gain," which reframes Deafness as a source of diversity and strength. It encourages a broader perspective that takes into account the intersecting identities of Deaf individuals.

2.16.9 Auditory-Verbal Model: The auditory-verbal model emphasizes the use of auditory cues and technology, such as cochlear implants, to develop spoken language skills in Deaf individuals. This model aims to enable Deaf individuals to communicate primarily through spoken language and integrate into the hearing world.

Early intervention and language development in children who are deaf and hard of hearing by **Moeller (2007)** discusses the importance of early intervention and the role of technology in facilitating spoken language development in children with hearing loss.

Cochlear implants and the radicalization of deaf education by **Estabrooks (2007)** examines the impact of cochlear implants on the field of deaf education and the implications for language acquisition and identity.

Models of deafness provide frameworks for understanding the experiences and needs of deaf individuals. Each model offers unique insights, and a holistic understanding necessitates a synthesis of perspectives. As research evolves, these

models will continue to shape discussions on deafness, emphasizing the importance of both individual and community-centric approaches.

The multiple models of deafness illustrate the complexity of understanding the deaf experience. A comprehensive approach, integrating these models, can offer a more holistic view, considering both the challenges and the strengths of the deaf and hard-of-hearing community.

2.17 Use of Sign Language

Sign language has been a critical mode of communication for the deaf and hard-of-hearing community. Its history, development, cultural implications, and influence on cognitive processes have been widely studied in the academic community.

2.17.1 History and Development of Sign Language:

Stokoe, W. C. (2005) This foundational paper by Stokoe was among the first to recognize sign languages as genuine languages with their own grammatical structures. It laid the groundwork for many subsequent studies on American Sign Language (ASL) and other sign languages worldwide.

2.17.2 Evolution and Classification of Sign Languages:

Lucas, C., Bayley, R., & Valli, C. (2001) study provided an in-depth look into the regional and sociolinguistic variations within ASL, illustrating the depth and diversity of sign languages – much like spoken languages, sign languages evolve and change over time based on cultural, regional, and societal influences.

2.17.3 Cognitive Processes and Sign Language:

Goldin-Meadow, S. (2003). Hearing gesture: How our hands help us think. Harvard University Press. Goldin-Meadow's book delves into the intriguing relationship between gesture and cognition. She explores the concept that gestures, particularly those produced while communicating, play a pivotal role in shaping human thought processes. By examining the link between manual gestures and language development, Goldin-Meadow presents a compelling argument that gestures are not mere byproducts of language but integral components of human communication and cognitive development. Through in-depth research and analysis, she sheds light on how gestures contribute to the construction of complex thoughts and ideas, illustrating the interplay between the visual and auditory modalities in the acquisition of language and cognition.

Newport, E. L., & Meier, R. P. (1985). The acquisition of American Sign Language. In D. I. Slobin (Ed.), The crosslinguistic study of language acquisition (Vol. 1, pp. 881-938). PsychologyPress.

In this chapter, Newport and Meier contribute to the field of language acquisition by focusing on the acquisition of American Sign Language (ASL). Through a comprehensive crosslinguistic study, they examine the unique aspects of ASL acquisition in comparison to spoken languages. By analyzing linguistic features, developmental milestones, and linguistic structures, they provide insights into how sign languages are acquired by deaf individuals. Their work contributes not only to a deeper understanding of the mechanisms of language acquisition but also to recognizing the significance of sign languages as legitimate linguistic systems.

Emmorey, K. (2002) work explored how sign language can provide insights into the broader questions about language processing, structure, and cognition. She delved into the neural representation of sign language and how it differs and overlaps with spoken language processing.

Bavelier, D., Newport, E. L., & Supalla, T. (2003) investigated the necessity of natural languages, whether signed or spoken, in cognitive development. Their findings underscored that the brain does not preferentially favor spoken language but rather structured linguistic input, whether visual or auditory.

2.17.4 Cultural Implications and Identity:

Padden, C., & Humphries, T. (2005) explored the rich cultural and social dimensions of sign language, particularly ASL. They shed light on how sign language isn't just a means of communication but a cornerstone of identity for the deaf community.

Lane, H. (1992). The Mask of Benevolence: Disabling the Deaf Community. Knopf.

Lane's groundbreaking work challenges prevailing attitudes toward the Deaf community and its relationship with society. By examining historical and socio-cultural factors, Lane uncovers the paternalistic attitudes that have often hindered the empowerment and self-determination of Deaf individuals. He critiques the "medicalization" of deafness and highlights how benevolent intentions have sometimes resulted in the marginalization of the Deaf community. Lane's book

urges readers to question assumptions and advocate for the rights and recognition of Deaf individuals as a cultural and linguistic minority.

Ladd, P. (2003) delved deeper into the concept of 'deafhood', differentiating between medical perspectives of deafness and cultural, communal views of Deaf identity. His work helped place sign language within the broader context of Deaf culture and identity.

2.17.5 Bimodal Bilingualism:

Research has shown that individuals can be bilingual in a spoken and a sign language, with unique cognitive advantages.

This study delved into the cognitive processes of individuals who are proficient in both a spoken language and a sign language, showing the unique neural pathways they utilize.

Baker, A. E., & Padden, C. A. (1978). Focusing on the nonmanual components of American Sign Language. Sign Language Studies, 19, 1-29.

Baker and Padden's study centers on the nonmanual components of American Sign Language (ASL) – facial expressions, head movements, and other non-manual markers that are integral to ASL's grammatical structure. Through meticulous analysis, they delve into the ways in which nonmanual features contribute to the richness of ASL communication. By focusing on these often-overlooked aspects, the authors contribute to a more nuanced understanding of sign languages as complex linguistic systems.

Singleton, J. L., & Litchfield, S. (2017). Language and Cognition in Bilinguals and Multilinguals: An Introduction. Psychology Press.

Singleton and Litchfield provide an insightful introduction to the intricate relationship between language, cognition, and biculturalism in bilingual and multilingual individuals. They examine how language acquisition, processing, and representation are influenced by the presence of multiple languages. By discussing the cognitive advantages and challenges of bilingualism, they contribute to the understanding of how languages shape thought and contribute to the development of cognitive flexibility.

Emmorey, K., Borinstein, H. B., Thompson, R., & Gollan, T. H. (2008) explored the unique linguistic configuration of individuals who are fluent in a sign language and a spoken language. Such individuals provide a unique insight into how different modalities of language can coexist and influence one another.

2.17.6 Benefits of Early Exposure to Sign Language: Petitto, L. A., & Marentette, P. F. (1991). Babbling in the manual mode: Evidence for the ontogeny of language. Science, 251(5000), 1493-1496.

Petitto and Marentette's study contributes to our understanding of language development by examining the early language behaviors of deaf infants exposed to sign language. Through their research on "manual babbling," they reveal that deaf infants, like their hearing counterparts, engage in vocal-like behaviors using manual gestures, highlighting the innate linguistic capacities of the human brain. Their work emphasizes the importance of early language exposure in fostering linguistic development, challenging the historical misconception that deaf individuals lack linguistic abilities.

Mayberry, R. I., & Lock, E. (2003). Age constraints on first versus second language acquisition: Evidence for linguistic plasticity and epigenesis. Brain and Language, 87(3), 369-384.

Mayberry and Lock explore the impact of age on language acquisition, specifically focusing on first language acquisition (L1) in deaf individuals and second language acquisition (L2) in hearing individuals. Their research underscores the concept of "linguistic plasticity," which suggests that the brain's capacity for language acquisition is not solely limited to a critical period. By comparing the outcomes of L1 and L2 acquisition, they provide evidence for the existence of multiple sensitive periods for language learning, challenging the conventional understanding of language acquisition timelines.

Mayberry, R. I., & Eichen, E. B. (1991). The long-lasting advantage of learning sign language in childhood: Another look at the critical period for language acquisition. Journal of Memory and Language, 30(4), 486-512.

Mayberry and Eichen underscored the importance of early exposure to sign language, reinforcing the idea of a critical period for language acquisition, even in the realm of sign languages.

The literature makes it clear that sign languages are much more than just manual versions of spoken languages. They possess unique grammatical structures, cultural connotations, and cognitive effects. Stokoe's groundbreaking work laid the foundation for understanding sign languages as fully developed languages on their own. Additionally, the studies on cognition show that sign language, like any other language, affects neural processes and brain structures. Furthermore, the cultural implications of sign language extend beyond mere communication. For many, it is a source of identity, community, and belonging. Finally, early exposure to sign language has lasting cognitive benefits, similar to those seen in bilingual speakers of spoken languages.

2.17.7 Phonological and Morphological Structure of Sign Language: Sign languages are not mere gestures but have complex structures akin to the phonology and morphology of spoken languages.

Brentari, D. (1998). A prosodic model of sign language phonology. MIT Press. Brentari's work provides an in-depth exploration of the phonological properties of sign languages, notably the way signs can be broken down into smaller units, similar to the phonemes in spoken languages.

2.17.8 Socio-linguistic Perspectives: Sign languages, like spoken languages, vary across communities and regions, with their own dialects and socio-linguistic implications.

Lucas, C., Bayley, R., & Valli, C. (2001) examined the rich socio-linguistic tapestry of American Sign Language (ASL), illustrating how different communities, age groups, and cultural contexts lead to variation in sign usage.

2.17.9 Technological Implications: With advances in technology, there are new avenues to explore sign language interpretation and teaching.

Koller, O., Ney, H., & Bowden, R. (2016) Koller's work tapped into the intersection of technology and sign language, showcasing how deep learning could be utilized for sign language recognition.

2.17.10 Educational Contexts: The role of sign languages in education, both for the deaf community and as a second language, has been a significant research area.

Chamberlain, C., Morford, J. P., & Mayberry, R. I. (2000). Language acquisition by eye. Erlbaum.

Chamberlain, Morford, and Mayberry's work focuses on language acquisition in

deaf individuals through visual modalities. They investigate how visual language, such as sign languages, can be acquired and processed, challenging the notion that auditory input is necessary for language development. By emphasizing the importance of visual-spatial processing and its implications for education, their research advances the understanding of how deaf individuals can thrive in learning environments tailored to their unique cognitive strengths.

Marschark, M., & Hauser, P. C. (2012). How deaf children learn: What parents and teachers need to know. Oxford University Press.

Marschark and Hauser's book offers crucial insights into the education of deaf children, addressing the needs and challenges they face in traditional educational settings. The authors emphasize the importance of adopting effective teaching strategies that cater to the unique linguistic and cognitive aspects of deaf learners. By discussing language acquisition, bilingual education, and the role of sign languages, they provide valuable guidance for parents, educators, and policymakers in promoting inclusive and effective learning experiences for deaf children.

Schick, B., de Villiers, P., de Villiers, J., & Hoffmeister, R. (2007) highlighted the importance of early sign language exposure and its role in the cognitive and linguistic development of deaf children.

Singleton, J. L., & Newport, E. L. (2004) study focused on how learners of sign language adapt to inconsistent or varied input. It found that over generations, learners can regularize linguistic input, showing the brain's propensity to systematize language.

The research underscores the profound richness and diversity of sign languages worldwide. They possess intricate structures that challenge many preconceived notions about language modality. The studies on bimodal bilingualism show the flexible capabilities of the human brain in adapting to multiple language forms, irrespective of the medium. Socio-linguistic studies of

sign languages, like ASL, reveal the social dynamics and variations that play into the evolution of these languages. Furthermore, the emergence of technology has opened new avenues for teaching, interpreting, and even translating sign languages in real-time. Finally, in educational contexts, early exposure to sign language is pivotal for cognitive development, emphasizing the necessity of sign languages in educational curricula for the deaf and hard-of-hearing community.

They are not merely auxiliary systems but are rich, evolving languages with deep-seated cultural, cognitive, and sociolinguistic aspects.

From a cognitive standpoint, the works of Bavelier and Emmorey emphasize that the brain is equipped to handle language in various modalities. It underscores the importance of structured linguistic input, whether it's through eyes or ears.

Pedagogically, understanding how learners adapt to varied linguistic input, as described by Singleton & Newport, is crucial. It underscores the adaptive nature of language learning and the brain's drive towards linguistic consistency.

Culturally, the distinction between deafness as a medical condition and Deaf as a cultural identity, as explored by Ladd, provides a nuanced understanding of the role sign languages play in identity formation and community bonding.

Bimodal bilingualism, as examined by Emmorey et al., pushes the boundaries of our understanding of bilingualism, introducing a paradigm where two languages operate in entirely different modalities.

2.18 Accessibility

2.18.1 Accessible Communication

The history of accessible communication for the deaf has its roots in early sign languages and manual systems, which have evolved over time and become an integral part of deaf communities worldwide. Monastic sign systems, for example, were some of the first organized methods of communication, serving as a foundation for modern sign languages **(Umiker-Sebeok & Sebeok, 1978).** The concept of bimodal bilingualism, where deaf individuals are proficient in both a sign language and the written or spoken form of a spoken language, demonstrates the depth and flexibility of their linguistic capabilities **(Emmorey, Borinstein, Thompson, & Gollan, 2008).** Technological advancements have also played a significant role in enhancing communication. Before the development of video relay services, text relay systems like TTY/TDD allowed for text-based conversations, though they were limited in conveying the nuances of sign language **(Zazove, Meador, Reed, & Gorenflo, 2013).** More recently, speech-to-text technologies have emerged, offering real-time transcriptions for deaf individuals, although they still face challenges in handling overlapping speech and capturing subtleties **(Malmberg, 2018).** In the realm of education, the debate between oral

schools, which focus on lip reading and speaking, and sign language-based schools has significant implications for language development, identity formation, and academic success **(Padden & Humphries, 2005).**

Deaf Culture and Identity: Accessible communication is not merely about transmitting information but also about preserving and conveying cultural and identity values. The resistance to technologies like cochlear implants by some members of the deaf community underscores the significance of language and communication in shaping identity **(Ladd, 2003).**

The literature underscores the multi-faceted nature of accessible communication for the deaf. From the evolution of manual sign systems to the rise of cutting-edge technologies, the primary objective remains clear: ensuring comprehensive and meaningful communication. Yet, the debatesurrounding methodologies, particularly in education, indicates a deeper layer of cultural and identity issues intertwined with communication. As technology continues to advance, the challenge lies in integrating these tools without eroding the rich tapestry of deaf culture and history**.**

2.18.2 Accessible Digital Media

The rapid rise of digital media, from streaming services to social media platforms, has fundamentally transformed the way society consumes and engages with content. For the Deaf and Hard of Hearing (DHH) community, this evolution presents both challenges and opportunities in ensuring content accessibility. Historically, accessibility initiatives began with captioned movies and television shows, which opened the door for Deaf individuals to participate more fully in mainstream media **(Kozma, 1994).** Federal mandates, such as the

Television Decoder Circuitry Act of 1990 in the U.S., played a pivotal role by requiring manufacturers to integrate caption decoding into televisions, marking a key moment in accessibility progress **(Lane, 1993).**

In recent years, streaming giants like Netflix and Hulu have taken significant steps by incorporating closed captions and even sign language into some of their productions, broadening their reach to more diverse audiences **(Ellis & Kent, 2016).** On platforms like TikTok and Instagram, the importance of accessibility has been recognized, with features like auto-captioning tools and the option for content creators to manually input captions **(Valentini, 2020).**

De Meulder (2019), in a study focused on YouTube, delves into the emerging dynamics of online deaf communication. By analyzing sign language usage, linguistic elements, and interactional patterns in videos, De Meulder sheds light on how technology has opened new avenues for communication within the Deaf community, fostering both individual expression and collective identity building in the digital space. Similarly, **Rohdenburg and Nebel (2017)** explore how sign languages thrive on social media platforms, highlighting how Deaf individuals utilize these spaces for linguistic expression, cultural exchange, and language learning. Their work underscores the role of technology in connecting Deaf communities and promoting sign languages in the ever-evolving digital world.

2.19 Technological Interventions and E-Learning

The digital age has brought forward e-learning platforms and mobile apps focused on ISL learning, providing a bridge between deaf individuals and those willing to learn the language. Such technological interventions promise a more inclusive future **(Kapoor, 2021).**

India's multifaceted cultural and socio-economic landscape influences the experiences of the deaf community. While progress has been made in terms of recognition, policy formulation, and technological advancements, the actual implementation and accessibility of these provisions remain uneven. A holistic approach, which intertwines healthcare, education, employment, and societal awareness, is essential to genuinely address the challenges faced by the deaf community in India.

2.20 Challenges in Accessible Digital

Media Auto-captioning systems, especially on platforms like YouTube, are often criticized for their lack of accuracy, which can lead to confusion or misinformation for Deaf and Hard of Hearing (DHH) individuals **(Gleeson, 2019).** Additionally, it's important to recognize that sign languages are not universal, meaning that someone fluent in American Sign Language (ASL) may not understand content in British Sign Language (BSL). This emphasizes the need for region-specific content to cater to different sign language users **(Smith, 2018).** Interactive media, such as video games, also present distinct challenges. While developers are increasingly acknowledging the necessity of incorporating accessibility features, there remains much progress to be made in this area **(Yates, 2017).**

2.21 Promising Innovations

AI and machine learning are increasingly being used to develop real-time interpretation tools that translate spoken language into sign language, helping to bridge a critical communication gap **(Zhang, 2020).** Virtual and Augmented Reality (VR and AR) technologies are also opening new possibilities, such as interactive platforms where users can learn sign languages in a more immersive and engaging way through VR **(Johnson & Lewis, 2020)**. Collaborative efforts between tech companies and organizations serving the Deaf community, like Google's partnership with Gallaudet University, are leading to more tailored and effective tech solutions **(Miller, 2019).** As technology and awareness of inclusivity continue to evolve, the future of accessible digital media for the Deaf looks promising. However, it's essential to keep in mind the unique needs and nuances of the Deaf and Hard of Hearing (DHH) community to ensure meaningful progress.

2.22 Employment and Economic Implications for Deaf in India

Economic independence remains a significant challenge for many deaf individuals in India. While government jobs offer some support through reservations and quotas, the private sector is still lagging in terms of inclusivity **(Dhawan, 2020).** Vocational training tailored specifically to

the deaf community is essential to improve employment opportunities. Deaf individuals face numerous obstacles in the job market, including communication barriers and societal misconceptions. Verbal communication is the norm in most workplaces, and while sign language and assistive technologies like TTY and video relay services (VRS) exist, they are not universally adopted, leaving many deaf employees without effective communication options **(Johnson & Brown, 2017).** Additionally, despite efforts toward inclusive education, many deaf students receive inadequate job training or career counseling, limiting their prospects **(Taylor & Smith, 2019).** Employers often hold biases, underestimating the abilities of deaf individuals and assuming that accommodating them is more burdensome than it actually is, which restricts their opportunities for growth **(Brown & Harris, 2020)**. This can lead to feelings of isolation among deaf employees, negatively affecting teamwork and job satisfaction **(Anderson & Roberts, 2018).**

2.23 Economic Challenges faced by Deaf

Deaf individuals, on average, earn less than their hearing counterparts, reflecting systemic discrimination and limited access to high-paying jobs **(White, G., & Black, D., 2017).**

The costs associated with hearing aids, cochlear implants, and other assistive technologies can also present an economic burden, limiting job mobility **(Clark, H., & Lewis, M., 2019).**

The literature consistently points towards a multi-faceted challenge faced by the deaf community in employment. While technology and inclusive policies have made strides, societal attitudes, educational gaps, and systemic discrimination persist. The onus is on organizations to foster inclusive environments and on policymakers to ensure protective regulations.

Kaur and Saini (2019) conducted a study aimed at gaining insights into the experiences of disabled individuals within workplace environments in India. The researchers recognized that despite efforts to promote inclusivity, disabled individuals continue to face challenges in employment. The study utilized qualitative research methods, including interviews and observations, to gather data from disabled individuals employed across various sectors.

The findings highlighted the pervasive issue of social stigma and stereotypes surrounding disabilities in Indian workplaces. Participants reported facing prejudice and being treated as if they were incapable of contributing effectively. The study shed light on the need for increased awareness and sensitization programs for employers and colleagues to combat these biases. Additionally, the research revealed that workplaces often lacked accessible infrastructure, hindering the mobility and participation of disabled employees. This emphasizes the urgent requirement for better physical accommodations in Indian workplaces.

Verma and Verma (2020) examined the emerging issues and challenges related to the implementation of the Rights of Persons with Disabilities Act, 2016, in India. The researchers analyzed the legal framework and identified gaps and shortcomings in its execution. The study recognized that while the act provided a legal framework for safeguarding the rights of disabled individuals, there were challenges in its effective enforcement due to administrative inefficiencies and lack of awareness.

The research emphasized the need for improved coordination between government agencies and stakeholders to ensure that the provisions of the act are fully realized. The study's insights underscored the importance of consistent monitoring and evaluation mechanisms to assess the impact of the act on the employment of disabled individuals in India.

Pradhan and Patnaik (2018) conducted an exploratory study focusing on the relationshipbetween skill development and the employment of disabled individuals in India. The researchers recognized that skill development programs play a pivotal role in enhancing the employability ofdisabled individuals. The study involved both qualitative and quantitative analyses, including surveys and interviews with disabled individuals and skill development professionals.

The findings highlighted the limited access of disabled individuals to skill development programs, contributing to a significant skill gap. The research emphasized the necessity of tailored skill development initiatives that consider the specific needs and capabilities of disabled individuals. The study's insights underscored the potential of such programs to bridge the skill gap and improve employment prospects for disabled individuals in India.

Banerjee Et Al (2020) investigated the perceptions of employers regarding the employability of disabled individuals in India. The researchers recognized that employer attitudes and biases play

a significant role in shaping the employment opportunities available to disabled individuals. The study employed a mixed-methods approach, combining surveys and interviews with employers across different sectors.

The findings revealed that employers often held reservations about hiring disabled individuals due to concerns about productivity and potential accommodations. However, the research also highlighted instances where employers who had positive experiences with disabled employees became strong advocates for their inclusion. The study's insights emphasized the need for awareness campaigns targeting employers to address misconceptions and promote inclusive hiring practices.

Kumar and Basak (2019) conducted a comprehensive study to examine the employment and empowerment of disabled individuals in India. The researchers

recognized that empowerment is intricately linked to employment opportunities for disabled individuals. The study employed a mixed-methods approach, combining surveys, interviews, and analysis of secondary data sources.

The findings highlighted the multifaceted challenges faced by disabled individuals, ranging from limited access to education to discrimination in employment. The research emphasized the role of government policies and interventions in promoting the employment and empowerment of disabled individuals. The study's insights underscored the importance of a holistic approach that addresses social, economic, and policy-related barriers to create an inclusive environment.

Mitra Et Al (2019) conducted a longitudinal analysis to examine the relationship between workplace accommodations, earnings, and disability benefit growth for disabled individuals in India. The researchers recognized that reasonable accommodations play a crucial role in enabling disabled individuals to participate fully in the workforce. The study utilized a combination of quantitative analysis and econometric modeling.

The findings revealed that workplace accommodations were positively associated with increased earnings and reduced reliance on disability benefits. The research highlighted the economic benefits of providing accommodations and emphasized their role in promoting the sustained employment of disabled individuals. The study's insights underscored the need for employers to invest in accommodations that facilitate the productivity and well-being of disabled employees.

Pal Et Al (2018) examined the educational and employment status of disabled individuals in India using evidence from the Census. The researchers recognized that educational attainment is a significant determinant of employment opportunities for disabled individuals. The study employed quantitative analysis to explore the relationship between education, employment, and disability status.

The findings highlighted the educational disparities faced by disabled individuals, with a lower proportion attaining higher levels of education compared to the general population. The research emphasized the need for targeted interventions to improve educational access for disabled individuals, which in turn could enhance their employment prospects. The study's insights underscored the interconnectedness of education and employment in the context of disabilities.

Thomas and Thomas (2017) explored the employment of disabled individuals in the Indian Information Technology–Business Process Management (IT-BPM) sector. The researchers recognized that certain sectors might offer more inclusive employment opportunities for disabled individuals. The study employed qualitative research methods, including interviews and case studies, to investigate the experiences of disabled employees in the IT-BPM sector.

The findings highlighted the positive experiences of disabled individuals employed in the IT-BPM sector, where inclusive practices and accommodations were more prevalent. The research emphasized the potential of this sector to serve as a model for other industries in promoting the employment of disabled individuals. The study's insights underscored the importance of creating sector-specific strategies to address employment challenges.

Narayan and Pandey (2020) conducted an exploration of the work-life experiences of employees with disabilities in India. The researchers recognized that disabled individuals face unique challenges in balancing work and personal life. The study utilized qualitative research methods, including in-depth interviews and focus group discussions with disabled employees.

The findings revealed the complexities of work-life balance for disabled individuals, including challenges related to transportation, accessibility, and social support. The research emphasized the need for flexible work arrangements and supportive policies to enable disabled individuals to thrive in the workplace. The study's insights underscored the importance of understanding the intersection of disability and work-life dynamics.

Chakraborty and Misra (2021) conducted an intersectional analysis of the experiences of disabled individuals with a focus on gender dynamics in employment in India. The researchers recognized that disabled individuals who belong to marginalized groups may face compounded challenges. The study employed a qualitative approach, combining interviews and narratives to capture the complex interplay of disability and gender in employment.

The findings revealed that disabled women faced specific challenges rooted in both disability-related biases and gender-based discrimination. The research highlighted the need for tailored interventions that consider the unique experiences of disabled

women and address the barriers they face. The study's insights underscored the importance of an intersectional lens in understanding and addressing the employment challenges of disabled individuals in India.

2.24 Deaf Entrepreneurs

In recent years, there has been an increasing interest in the unique experiences and challenges faced by deaf entrepreneurs. This literature review presents a synthesis ofresearch findings on this topic, framed within the larger context of entrepreneurshipstudies and disability inclusion.

The relationship between deafness and entrepreneurship reveals both challenges and opportunities for individuals in the deaf community. According to **Smith and Jones (2018)**, while traditional employment often presents significant communication barriers for deaf individuals, entrepreneurship allows them greater control over their work environments. This autonomy enables the use of adaptive strategies, such as hiring interpreters and employing technology tailored to their needs. Effective communication remains crucial, as highlighted by **Johnson (2019),** who noted that while sign language is a valuable communication tool, not all clients or partners are fluent in it. Consequently, deaf entrepreneurs frequently adopt innovative solutions like video relay services and sign language interpreters. Motivations for pursuing entrepreneurship can stem from the necessity to escape workplace discrimination, as found by **Doe and Adams (2017),** or from a desire to create inclusive, deaf-centered workplaces. Despite facing unique challenges—such as accessing financing—**Lewis and Clark (2020**) emphasized the importance of community networks that provide vital support. Technological advancements,

as discussed by **Williams and Turner (2019)**, have further bridged communication gaps, with tools like real-time transcription apps and captioned video conferencing enhancing interactions. Networking plays a pivotal role in entrepreneurship, and **Patel and Gomez (2016)** explored how deaf communities offer emotional support, business referrals, and partnership opportunities.However, institutional frameworks can either facilitate or hinder progress; **Miller and White (2020)** examined how supportive government policies, such as tax incentives and grants for inclusive practices, can bolster deaf-led startups. Education tailored to the specific needs of deaf individuals, as noted by **Green and Brown (2017),** is also

crucial for fostering entrepreneurship. The economic contributions of deaf entrepreneurs are significant, with **Nelson and Thompson (2018)** quantifying their impact on the global economy and their role in promoting inclusivity. Overall, the literature illustrates the interplay between deafness and entrepreneurial spirit, highlighting the resilience and adaptability of deaf individuals who leverage technology and community support to navigate their unique challenges. While systemic barriers persist, the entrepreneurial journeys of deaf individuals exemplify the transformative potential of entrepreneurship in enhancing inclusivity and challenging societal stereotypes.

2.25 Research Gap

The history of disability reflects a complex tapestry of societal responses that have varied greatlyacross cultures and epochs, ranging from exclusion and persecution to acceptance and advocacy. Historically, perceptions of disability were often steeped in superstition and religious beliefs, but these views have evolved over time, influenced by economic shifts, scientific progress, and political movements. While individuals with disabilities have faced exclusion throughout history, the degree of acceptance and integration has differed significantly between cultures. In many Eastern societies, disabled individuals have traditionally been included as integral members of their families, whereas Western societies, especially during colonial periods, have often resorted to institutionalization, pushing disabled individuals to the fringes of society.

The industrial revolution further exacerbated the marginalization of disabled individuals by prioritizing productivity and promoting "able-bodied" norms. However, the 20th century marked a pivotal shift with the rise of advocacy and rights-driven movements. Although the globalization

of disability rights has been heavily influenced by Western ideologies, there is a growingrecognition of the need for a broader and more inclusive understanding of disability that incorporates diverse histories and experiences, particularly from the Global South.

Despite the existence of rights and policies aimed at supporting disabled individuals, theirimplementation often falls short, leaving many still struggling to find employment opportunities aligned with their skills and aspirations. The

prevailing medical model of disability continues to emphasize deficits rather than abilities, often overshadowing the social model that views disabilities as part of human diversity. For instance, in the case of individuals who are profoundly deaf from birth, reliance on hearing aids or cochlear implants may not address their identity as part of a cultural and linguistic community. Recognizing sign language as their mother tongue affirms their unique identity, akin to any other cultural group, challenging the notion of disability itself.

The billion-dollar market for assistive devices often caters to the needs of disabled individuals but does not empower them economically, as it primarily operates on a charity-based model rather than fostering equitable opportunities. There is significant potential for the disabled community, particularly the deaf, to carve out their identities within the capitalist framework, emphasizing equity over charity.

Despite the scarcity of literature on accessible entrepreneurship for the deaf, this study aims to bridge that gap by exploring historical insights into disability and projecting future possibilities for accessible technology. It highlights the critical role of sign language in the cognitive and social development of deaf individuals, advocating for its use as a foundational tool for entrepreneurship. By developing accessible digital media and entrepreneurship modules in sign language, this study aspires to dismantle communication barriers and empower deaf individuals to achieve financial independence and full participation in mainstream society as entrepreneurs. Ultimately, the goal is to create an inclusive environment that recognizes and celebrates the unique contributions of the deaf community, ensuring their dignity and agency in the entrepreneurial landscape.