Disability Studies in Inclusive Education

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Including Disability in Education in Africa

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First Edition

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Preface

Towards teacher empowerment and inclusive education for all

This textbook arises from the Teacher Empowerment for Disability Inclusion (TEDI) project, which started in the Division of Disability Studies at the University of Cape Town (UCT) in 2017. The aim of this project, which was funded by the Christelike Blinden Mission and the European Union, was to address the shortage of teachers trained in how to include children with disabilities in their classrooms through the development of short courses and massive open online courses (MOOCs). To address this need, the Disability Studies in Education (DSE) course was developed in 2018 as a MOOC, a short course and an accredited course in the postgraduate diploma in Disability Studies at UCT.

The DSE course was developed with active participation from academics, teachers, parents and persons with disabilities, as well as other community stakeholders, such as NGOs. Through a process of consultation, the course convenors were able to bring together a range of skills and expertise from scholars in the field of Disability Studies, specialist educators and experienced learning designers. Many of the course lecturers were persons with disabilities themselves. The course was further informed and developed by student feedback through each of its iterations. At the time of developing this textbook, the course had been offered four times as a postgraduate diploma course and four times as a short course. The MOOC had been running for four years, with more than 2 000 participants having completed the course.

As a result of this vibrant collaboration, many useful resources and a conceptual framework for understanding disability in education were developed and it became clear that it would be helpful to lecturers and students alike to bring these resources together. This textbook is the result of that effort. It is hoped that it will provide a resource not only to UCT students, but also to other students and lecturers at other universities and teaching education institutions.

The teaching and learning materials in this textbook were developed by the course convenors and the guest lecturers participating in the course in line with Universal Design for Learning (UDL) principles, which increases the choice of learning pathways for students by providing course materials, activities and assessments with multiple forms of representation, expression and engagement.

Guiding principles

We believe that to work in inclusive education, we must begin by examining our own feelings and our own fears and misconceptions around this emotive topic. In this book, we will challenge the way that disability is often seen as a medical matter, only to be dealt with by experts, such as doctors, therapists and special educators. We encourage our readers to look at disability as just another form of diversity, much the same as race or class. This book places the experiences of learners with disabilities and their families at the centre of the learning experience. We are aware that the voices of children and parents have not been sufficiently heard and we acknowledge the importance of engaging with disabled adults as both teachers and mentors who can guide our practice.

We aim to increase disability confidence of teachers in both mainstream and special schools so that they feel empowered to engage with disability in their classrooms. We also provide the basic understanding and tools for teachers to work with children with disabilities through understanding the nature of their impairment and strategies to meet their learning needs. It is our hope that once teachers feel confident and empowered, they will take charge of their own learning and continue to build their skills on their own and within communities of practice.

The premise for the promotion of inclusive education is social justice and human rights. People with disabilities have long been discriminated against and excluded and inclusive education is a major strategy to address this unfair treatment. We are moving away from the idea that disability determines how, when and where a child is educated, to ensuring that every child has a right to educational equity on par with non-disabled peers.

The way to achieve such ambitious goals, we believe, is through collaboration between families, communities and schools. We develop the idea that disability occurs in a social environment where there are many other factors at play which may have an impact upon a child's educational achievement. In an African setting, it is important that we look carefully at this environment and adopt a critical, what we term "decolonial", perspective.

A central premise of this book is that learners are diverse in the learning pathways that work best for them, even though they might be working toward the same learning goals. This also applies to you as the reader of this book and the unique path that made you interested in this work. This reality forms the basis of UDL, an approach that we adopted in developing the text of this book as well as in teaching about inclusive practices. We have therefore embedded the principles of UDL in the way we present these materials. Multiple forms of content representation have been used to accommodate the variety of ways readers process information; be it video links, written text, reading links, glossary boxes, diagrams, icons to distinguish chapters, or alt text. The typeface, colour palette, and layout decisions have been made with visual accessibility in mind. This is an example of the multiple means of engagement found in the textbook. We incorporated different means of action and expression by including activity boxes and reflection boxes throughout the textbook.

Finally, we adopt an understanding of disability as being created by the interaction between a person with an impairment and their environment. This means that we need to pay careful attention to the kinds of environments that are conducive to learning for children who may not be able to learn through vision or hearing, have limited cognitive capacity for learning or find it difficult to access certain physical environments. We therefore devote sections to addressing different types of impairment in an inclusive environment.

Structure of this book

The book is divided into eight sections with three chapters in each. The first four sections cover the foundations of our approach, establishing Disability Studies in Education as our framework, with close attention paid to the recognition of disability experience and to social justice for people with disabilities, including the right to education. We locate inclusive education in our communities and examine it from a decolonial perspective. We provide a foundation of UDL for meeting a diverse range of learning needs. The following four sections drill down into the learning needs of children who are D/deaf or hard of hearing, with low vision or who are blind, and those who have intellectual or physical impairment. In each of these sections, the three chapters deal with the experience of disability; the nature of the impairment and its possible impact upon learning; and then the adaptations that address these learning needs.

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section A

Disability Studies in Inclusive Education

Disability as a social justice issue and recognition of disability experiences

chapter 1

Disability Studies in Inclusive Education

Overview: Disability as a social justice issue and recognition of disability experiences

Judith McKenzie & Brian Watermeyer

Section learning outcomes

After completing this section, you will be able to:

- Identify meanings that you have grown up with associated with disability.
- Reflect on your beliefs about disability in education.
- Discuss the ways in which learners with disabilities may be excluded from education and what the implications are.
- Analyse the responsibilities of schools and education systems in promoting the right to education of learners with disabilities.
- Discuss aspects of disability as a social justice issue.
- Understand the emergence of the discipline of Disability Studies and its basic propositions.
- Discuss key human rights conventions that are important in the disability field.
- Understand and critique the logic and mechanisms of a human rights approach to addressing disability inequality.
- Discuss the ways in which learners with disabilities may be excluded from education and what the implications are.
- Understand responses to educational needs of children with disabilities from a historical perspective.
- Analyse the guiding policies for schools and education systems in promoting the right to education for learners with disabilities.

Introduction

In this section, as we begin to frame our approach to inclusive education which informs the approach taken on this textbook, there are two important steps that we need to take.

The first is to honestly examine our own feelings towards disability and how our own fears and misconceptions might get in the way of developing inclusive teaching and learning. There is a great deal of research that shows that, as a society, we have deep-seated fears and

uncomfortable feelings about disability. If we do not acknowledge this as individuals, it can stop us from being able to engage constructively with people with disabilities and this can get in the way of inclusive teaching and learning. An important part of this understanding process is to challenge the traditional way of seeing disability as an **individual tragedy** that requires medical treatment, to seeing disability as the way in which **a person with a bodily impairment interacts with their environment.** This shift in thinking is at the core of the discipline that we call Disability Studies. We will look at these issues in **Chapter 2** and in the next section of the textbook we will apply the principles of Disability Studies in a way that contrasts with the special education approach. This will bring us to the conceptual framework of Disability Studies in Education (DSE) which is the foundation of our approach in this book.

Secondly, we will consider how inclusive education relates to the right to education of children with disabilities. How do schools meet the needs of all children, while at the same time catering for additional learning support that may be needed for children who are D/deaf or hard of hearing or who have an intellectual disability, for example? In **Chapter 3**, we will look at how people with disabilities have experienced education and the differences between special and inclusive education. It will be important at this stage to clarify that inclusive education is not only about disability, but is a far broader concept that aims to address educational exclusion in all its forms. It is our purpose in this textbook to locate disability inclusion within this wider framework. Here we will use the DSE lens to understand the impact of segregated systems of education.

As the title of this chapter suggests, this textbook places disability experiences at the heart of our discussion. What does it mean to have a disability? What does it mean to have a child or family members with a disability? What does it mean to teach a child with a disability? Disability experience is not only about people with disabilities, but also about how disability is seen in society. Is it something to be pitied or to be fixed; or is it about having an impairment that requires an adaptation in the environment in some way? We will come back to this theme later on in this section. In the meantime, let us begin by reading about the experiences of Looks Matoto.

Insider view: Perspectives on education

In this summary transcript of an interview from the "**Education for all: Disability, diversity and inclusion**" Massive Open Online Course (MOOC), Looks Matoto describes his experience as a person with a disability and provides us with valuable insights from a learner's perspective. He works for an NGO (the Disabled People's Organisation of South Africa) and in the interview he explains how he became involved in lobbying for the rights of children with disabilities. You will notice how he is at pains to show that disability is not just a personal but also a social

and political issue and to assert the rights of people with disabilities to equal participation in education and other spheres of social life. The transcript below is an extract from a longer interview.

By not including disabled people society is losing out on how that person would've interpreted a particular situation. Because we each have unique ideas on how to tackle things and we each have our own contribution and our own footprint on every aspect of life. So when you include, society will learn a lot. They will also learn because they would learn on how disabled people should actually be participating in this, because remember this will be a process of trial and error.

Learning is a two-way process. As much as I learn, you also learn from me. You also learn how in life when a student like me comes into your class, how do you then become better prepared. We also have a role in the participation, because there is a thinking that seems to place disabled people in a particular corner. The fact that my limb might not be functioning well says nothing about what capacity I have on the various subjects that are offered at school. I may excel in maths, I may excel in science. I may come with interventions that will better … actually because I am a disabled person I have a better lived experience on disability, I can better inform even society itself on how best to reasonably accommodate me so that the next time they meet another person they would've learnt from the first group that they've come across … this is how they need to be able to look into the issues of disability. So, it is a big, big plus.

And remember when we talk about diversity in the labour force, it does mean disabled people as well because we do bring diversity into the labour force. We do bring diversity into the educational system. We do bring diversity into society. So give us that space so that we can also play that role and be able to influence the direction of society because education is fundamental. It is fundamental to claiming your rights, your human rights. It is through education that you can be able to even be aware of such rights and be able to claim them. Now it is through education that you can also make an entry to a better life in terms of economic upliftment of disabled people. So, when you exclude disabled people in education and come with an exclusionist kind of curriculum, you are beginning to say that you need to learn differently from us. How is that different from racism? How is it different from black people being designed to school in a separate school, white students being in a particular different environment? Now if you understand inclusion in terms of race, what makes it so difficult to understand on the disability level as well, because these are just reflections of life? Let us allow life to happen in order for society to grow.

I would like to say to disabled people … the issue of inclusive education has rattled many disabled people, including parents of disabled peoplel … we grew up with some of us being used to special schools and that experience has not been a wonderful experience. Because you are disabled you were just taken away, put on a transport or bus, bussed away to a destination

about 300km away from your home, whilst your siblings are attending about 1km away or even less than a kilometre. You have to go 300km away. You only come back home during holidays, then you go away again. Then you would become a stranger in your own home. You become a stranger to your own parents, to your own siblings. Whilst everybody is here just because of your disability, it makes education traumatic. It makes you not feel that education is fashionable and should be something that is attained by a disabled person. It becomes punitive. You feel like you are being punished for being involved in education. As a result, you don't want that experience. And some, because of growing up in that environment you get used to it, because you know no other life than special schools. Then you feel sort of uncomfortable with the situation of being mainstreamed because you feel that you will be teased by other students. And the truth of the matter is you get teased even in special schools because you've got disabled students in the special schools who for some reason feel their disability is better than your disability and they tease you. You know, you cry just like everybody else or you learn to grow up and tease them back. So disabled people are not angels, they are human beings. They are capable of teasing you and hurting you in a school just like any child can do in any other school. They are capable of being mean and being friendly at the same time, just like any other child.

Let us not have solid ideas because there is very little you can do with solid ideas. It is better to have liquid ideas just like liquid water. You can be creative around liquid water, but with solid water it is difficult to manoeuvre it. So are solid ideas. If we as disabled people have these ideas that this is going to be difficult for us, let us be willing to try that and see the possibilities that are there. Let us adjust our own attitude and remember that we belong in that society and don't believe that society is out there to get us. No society is out there to get us. Let us teach society the different ways of thinking so that they in their societies thinking our own ideas can be seen. So let us not be fearful or scared to go into these issues.

When we talk inclusion, we talk about all the facets of disability inclusion, understanding the pros and cons of disability, making sure that all is on board, nobody is left out. No child will be left without education just because they are disabled. All we're then saying, disabled people, is let us grab this opportunity and say inclusive education is a way for us to make a contribution in the disability narrative.

REFLECTION

Think about your earliest experience of disability. When did you first become aware that there were people in your community who were disabled? How did you respond and what were you taught about this at the time?

chapter 2

Disability Studies in Inclusive Education

The emergence of Disability Studies: Disability as a social justice issue

Brian Watermeyer

Chapter learning outcomes

After completing this chapter, you will be able to:

- Discuss aspects of disability as a social justice issue.
- Understand the emergence of the discipline of Disability Studies and its basic propositions.
- Discuss key human rights conventions that are important in the disability field.
- Understand and critique the logic and mechanisms of a human rights approach to addressing disability inequality.

Introduction

The history of disability around the world is one of widespread social exclusion and disadvantage. Images of homeless disabled people, begging on the streets of cities across the world, are painfully familiar. While the social sciences have historically paid much attention to inequalities surrounding race and gender, it is only relatively recently that critical questions have begun to be asked about the social circumstances of disabled people. Over the past four decades, an international disability movement has developed, striving to bring the world's disability community together to advocate for their rights. This process has been supported by the growth of the discipline of Disability Studies, which has researched and theorised how and why disabled people continue to be pushed to the margins of society, and be deprived of resources and services which are essential for full citizenship.

One key strategy for promoting change in the life circumstances of disabled people is the enforcement of frameworks of human rights. Through work of the United Nations (UN), many countries around the world have become legally committed to acting to protect the human rights of their citizens, especially those who are vulnerable to exclusion and disadvantage, such as the disability community. Some social scientists believe that a human rights-based strategy has potential to transform the lives of the disability community, while others are more skeptical.

In this chapter, we will trace the emergence of the discipline of Disability Studies as a crucial development in promoting research and awareness surrounding disability inequality. Along the way, we will explore some basic insights that the discipline has offered to the global disability movement as it lobbies for the right to full participation of its people. After that, we will turn to

an examination of key international human rights conventions which are intended to improve the lives of disabled people, posing questions about the mechanisms and effectiveness of these strategies. Two case studies will provide material to enrich our understanding of important ideas in Disability Studies, as well as how human rights can be put to work in addressing the social exclusion of disabled people.

Disability as a social justice issue

In this section, we will first consider the position of disabled people as a group who experience social disadvantage and are typically found at the margins of most societies. We will then try to understand why this is the case, and in so doing explore the development of the discipline of Disability Studies. As we shall see, Disability Studies is devoted to investigating the many ways in which the organisation of our societies serves to unnecessarily and unjustly ignore the participation needs of disabled people.

Disability inequality and the emergence of the discipline of Disability Studies

According to the *World Report on Disability* published by the World Health Organization (**WHO, 2011**), an estimated 15% of the world's population lives with some form of disability, with the greatest proportion of this group located in the Global South. The social circumstances of this community are characterised by many forms of disadvantage. This is true in rich as well as poor nations where, despite legislative and governmental efforts at redress, inequalities and exclusion persist.

Disabled people are far more likely to be poor than non-disabled people and experience very high levels of unemployment. This is often based on low educational attainment, which, in turn, is the result of many disabled children being excluded from, or inadequately supported in, the education system. This exclusion is mirrored in many aspects of social life, where essential services such as health care and transportation, as well as resources such as housing, recreational facilities and information systems present barriers to access and participation for people with a range of impairments.

In simple terms, it is a reality that societies were created, and continue to develop, in ways which ignore the needs of disabled people. Built environments, technologies, social services, cultural conventions and social accommodations of all kinds have predominantly been designed in ways which cater primarily for the use and participation of non-disabled persons, leading to mass exclusion of the disability community. A constant context for this exclusion is

the reality of disablist prejudice, involving demeaning stereotypes about the nature and human potential of disabled people, which may harm the self-identities of members of this community. An important question for us to think about is how disabled people around the world have become positioned in such marginal, disadvantaged circumstances in society. In other words, what are the mechanisms which underpin the ongoing inequality suffered by disabled people? A key starting point in addressing this question is that social inequalities, be they to do with disability, race, gender or any other identity marker, are not maintained by mysterious forces "out there", but rather by the beliefs and attitudes we all carry. It is these often-hidden assumptions about members of various social groups which feed into systems maintaining inequality, based on harmful ideas about unequal human value or ability.

So, to answer the question of why disability inequality exists, it is essential to explore how we have come to think about disability – that is, what are the assumptions about people with disabilities that we hold and enact in our daily lives? This is just the same as examining our assumptions about members of different race groups in order to get to the bottom of the persistence of racial inequality. We have to look carefully inside ourselves – social scientists call this an exercise in *reflexivity*.

GLOSSARY: Reflexivity

A process of deliberately examining oneself and one's assumptions in order to explore how socialisation may alter perceptions of the world. We need to know and unpack what we have been taught in order to discover new ways of seeing the world. A humble, honest examination of our own feelings and assumptions is essential if we are to understand social realities (such as disability inequality) which depend on individual attitudes for their perpetuation.

The beginning of Disability Studies

In the 1970s, a group of academics in the United Kingdom were asking exactly these questions about disability inequality. The group was composed of people with disabilities who were also scholars in fields such as sociology, social policy and political studies. Key figures in this early movement were Mike Oliver (Oliver, **1990**; **1996**), Colin Barnes (**Barnes, 1998**), Paul Abberley (**Abberley, 1996**), Vic Finkelstein (**Finkelstein, 1980**), Paul Hunt (**Hunt, 1998**) and others; all of whom are now credited as co-founders of the discipline of Disability Studies.

These scholars applied their knowledge as social scientists to the question of the marginal position of disabled people in society – something they had experienced firsthand. Recognising that social inequality is based on beliefs about members of different identity groups, they explored what the common beliefs about disability in their society were, and what these were based upon. They believed that everyone in society had experienced *socialisation*, which has caused us to carry prejudices of various sorts.

Socialisation here refers to all we have been taught by our upbringing and exposure to culture in our society of origin. How, asked the early disability scholars, have we been taught to think about disability? They identified the most influential set of beliefs about disability in our society as a *medical model* view, leading us to understand disability as, first and foremost, a medical problem. While the model was based on thinking which originated in the medical professions, it is not limited to this community, but instead has become pervasive throughout many societies – we have all grown up with this model of understanding disability all around us. Over the subsequent years, much work in Disability Studies was dedicated to understanding and criticising this dominant medical model view of disability. But what is the medical model?

GLOSSARY: Socialisation

The process through which each of us is taught the range of values, beliefs and assumptions we carry. Some of this "teaching" is explicit, as in education or what we are told by our parents; and some is implicit, learned through the social realities, symbols and signals we are exposed to. With disability, for example, we may have been told certain things about what the phenomenon is and means, but we have also been exposed to more subtle signals. These include segregation of all sorts, the responses of others (including non-verbal), media representations, charity discourse and much else.

The "medical model" view of disability

A model is a way of thinking about something in the world – a set of assumptions that guides how we interpret what we observe. One model may show up certain aspects of society very clearly, while letting others fade into the background, while another will give us its own, different picture. We carry these models – or sets of assumptions – inside us, often not realising how our perceptions are being influenced until we stop and think carefully about it. It is as though we are looking at society through a lens, which distorts our view in particular ways. It

is not just the world we must examine, but the lens through which we perceive the world. So, what is the medical model's lens composed of?

The story begins here. During the course of the 20th century, disabled people became viewed as the "responsibility" of medical professionals in many societies. In particular, this occurred in societies where "Western", biological medicine (or *biomedicine*) had developed its great influence – an influence which continues to grow throughout the world.

Biomedicine – that is, institutional health care as we know it – aims to identify structural or functional disorder or difference in the body and put it right. This "correcting" (or curing) may be achieved through medication, surgery or other therapeutic interventions. In other words, biomedicine seeks to identify bodily "problems" and administer medical "cures". This may sound like common sense, but its implications for disabled people have been vast.

A key implication of biomedicine's approach is that it sees human distress (or illness) as being something that operates at the individual level. That is, if one suffers, the location of the problem, and therefore the place to try to put things right, is the individual – not social circumstances. In other words, it focuses our attention on personal characteristics, rather than the situational difficulties one may be in. For many illnesses this analysis is useful, directing therapies at individuals suffering from heart disease, cancer, pneumonia or any of a myriad of other diseases. Also, it is not surprising that doctors focus on the body, as this is what most have been trained to do. But in the lives of disabled people, struggle and distress are not caused only by characteristics (or disorders) of the body. Instead, the disability story is one of unjust social forces, which combine with bodily difference to create exclusion and inequality.

GLOSSARY: Biomedicine

The system of modern "Western" medicine which relies on an understanding of the body as a machine that can go wrong, and must be put right through cure. Biomedicine sees scientific realities as much more important than individual experience, and focuses on the body, rather than society, as the origin of human distress.

In answering the question of why it is that disabled people find themselves at the margins of society, biomedicine's logic would tell us that the origins of these difficulties are inside each individual. The argument would go as follows: the fact that disabled people have impaired bodies or minds, all on its own, causes them to be unable to participate fully in society. The role of how societies are structured in causing that marginality is thus not explored. In this view,

the poverty, unemployment and exclusion of disabled people may be seen as unfortunate and regrettable, but also as an inevitable, morally neutral consequence of what is "wrong" with the body. To illustrate the logic of the medical model view, let us think about the circumstances of the disabled person presented in the following case example.

In the words of Paul Abberley, an important early Disability Studies theorist, the medical model serves to "link together the experiences of an individual in a logic which attributes disadvantage to nature" (**Abberley, 1996, p. 62**).

What Abberley and other Disability Studies scholars were pointing towards was the way in which the medical model perspective takes the story of a life and re-writes it in a manner which sees distress or struggle as the result of biological causes – of nature. Importantly, "nature" is something out of our control, something we can do nothing about. By implication, the assertion here is that no one is to blame for the disadvantage disabled people often experience. The discipline of Disability Studies disagrees strongly with this idea, seeing the social disadvantage experienced by disabled people as a social injustice which can, and must, be corrected.

CASE STUDY 1: THE STORY OF GEORGE

George is 27 years old and has been blind since his birth. He completed his school-leaving certificate at a special school for visually impaired children and performed very well but did not go to university despite the fact that his teachers regarded him as of exceptional intelligence. George works as a switchboard operator at a local state hospital and lives alone in a small flat. He feels socially isolated much of the time and his participation in community life is greatly restricted by a lack of transport and the inaccessibility of leisure activities. He is aware of how his identity as a disabled person is a stigmatised one, and experiences it as a barrier between himself and others. His job is menial and unchallenging, pays very poorly, and there is no prospect of career advancement.

We may call this description a summary of George's "social destiny" – a term for the set of social and economic circumstances which society pushes us into over the course of a lifetime. George's social destiny is a marginal one. How did it come to be so? In a medical model view, we only need to look at the individual – the body – to answer this question. From this perspective, all we need to do is examine George's body to find out what is "wrong", and this will fully explain his social circumstances.

He is blind, and in the medical model view, this fact makes every aspect of his social destiny not only understandable, but inevitable. Someone with this view may comment that, while she feels "sorry" about the unfortunate situation, George "obviously" cannot participate more fully in further education and the community, hold higher status employment or live a less isolated life, as he is blind, and blindness makes these things impossible. Biomedical logic looks only at the body, believing that the causes of social destiny are all to be found there.

GLOSSARY: Social destiny

The "place" in society where one "ends up". It has several dimensions, including economic destiny (rich or poor, employed or unemployed), community location (high or low status), degree of participation in community life (high or low), access to key resources and services (such as health care, education, accommodation, transportation and information), as well as others.

An alternative view: The "social model" in Disability Studies

In response to the "individualising" bias of the medical model, a new, politicised approach to disability was formulated by Oliver, Barnes, Finkelstein and others. It became known as the "social model", as it shifted emphasis from medical causality to social causality. Their model was thus created deliberately in opposition to the medical model.

The most important conceptual contribution the social model made was distinguishing between the terms "impairment" and "disability". These words had previously been used interchangeably, but were re-defined in opposition to one another in order to make the central argument of the new model.

According to the new definitions, impairment would refer purely to difference or dysfunction of the body – what is irregular about its structure or functioning. The answer to the question "what is your impairment?" is typically a short, clear one, and will often be expressed in medical or scientific terms. For example, George's impairment from Case Study 1 might be described as blindness stemming from a particular congenital eye disease, with perhaps the addition of some scientific details on the organic course of the condition – it is short, scientific and says nothing about George's position in society.

By contrast, the social model theorists defined disability in the following way:

> *The loss or limitation of opportunities that prevent people who have impairments from taking part in the normal life of the community on an equal level with others due to physical and social barriers.* (**Finkelstein & French, 1993, p. 27**)

The implications of this new definition were immense. Instead of focusing on the body as the cause of marginality, the social modelists asked us to examine society's organisation and the ways it systematically discriminates against people who have impairments. In this sense, society became the new "patient" – one full of ailments (in the form of unnecessary and unjust barriers to participation) which needed to be identified and "cured".

The answer to the question "what is your disability?" is thus a long, layered and complex one. In George's case, answering this question would involve identifying and understanding all the ways in which he has been discriminated against, differently treated and excluded over the course of his life thus far. Researching this question fully would be a mammoth task, involving an examination of George's experiences in his family and early life; the segregation he experienced in education; the reality of stigma in his community; the inaccessibility of resources such as information, transport and recreation in his society; the lack of positive representation of "people like him" in media, literature and art; the stereotyping of visually impaired persons as suited only to menial labour; and much more. The social modelists had altered our focus of attention, arguing that we have been looking in the wrong place for answers to account for the marginal social destinies of disabled people.

Mike Oliver strongly rejected the medical model, describing it as a "personal tragedy theory", which misrepresented avoidable social injustice, reframing it as chance personal misfortune. He was talking about how someone working from the medical model perspective might comment that, while it was "unfortunate" and "regretted by all", the "reality" was that people with impairments were simply unable to participate in community life because of functional deficits. It was the "tragedy" of accident or illness which caused marginality, not the unjust organisation of societies. Rejecting this view in the strongest terms, the social modelists reiterated the fact that all aspects of most societies – the built environment and design of living spaces, modes of teaching and learning, delivery of services, transmission of information, and every other aspect – were created with only the needs of non-disabled people in mind. As we have seen, disabled people live in societies in which their impairment and needs are not considered or provided for, leading to a lack of access to resources and opportunities to participate. Almost everything we use and inhabit in our society has been designed to interface with the non-impaired body, presenting stress, frustration, indignity and often insurmountable exclusion to people who have impairments.

The (de)politicisation of disability

Social modelist thought also pointed out that the biomedical perspective has a "depoliticising" function. In other words, its misleading explanation for the deprivation suffered by disabled people tends to discourage the community from getting together to engage in political protest action. By convincing disabled people that their marginal social position was "their own fault" – that is, the result of impairment – the medical model influenced many of this group into quietly accepting their circumstances.

Like black people who have internalised racist ideas, such disabled people had come to feel that it was inevitable that they be marginal citizens. The social model corrected this with a strong contextual focus, tugging our attention back toward problems with how society is structured. This was the introduction of *ideology* into the analysis of disability – in other words, a demand that we examine our own beliefs and practices surrounding disability in order to understand inequality. As we saw earlier, the perpetuation of this inequality was not something "out there" in society, but was based on pervasive assumptions, judgments and actions held by people like ourselves. From a "personal tragedy" theory of disability, we had now moved to a *social oppression* position, where "oppression" refers not only to material inequality, but also to how disabled people are silenced and forced to accept and internalise a diminished value.

GLOSSARY: Ideology

The set of beliefs and practices which surround a certain aspect of life in society. For example, disability ideology refers to everything we believe about disability (its meanings, representations and associations) and all of our practices regarding it (including interpersonal, institutional, legislative, administrative, cultural and religious responses). Ideology construes reality in a particular way and interpolates (draws, seduces) us into that way of seeing. It obscures contradictions in society, tending to cover up the inhumanity of perpetual inequality and oppression.

Since the emergence of the social model, the field of Disability Studies has grown and evolved into a rich, interdisciplinary investigation into disability as a social justice issue. However, despite its popularity, The social model has also been criticised, as later Disability Studies drew on new lines of theory from fields including psychology, anthropology, philosophy and many others (e.g. **Shakespeare, 2014**; **Watermeyer, 2013**). The basic lesson of the social model, though, that the social disadvantage experienced by disabled people is more a result of social arrangements than impaired bodies, remains a cornerstone of the discipline. One key

strategy aimed at ensuring that the social disadvantage of disabled people is addressed is that of the mechanism of international human rights. In the following sections we will discuss the possibilities and problems associated with human rights frameworks.

Disability, inequality and human rights

As we have seen, disabled people around the world are reliably to be found on the lowest rungs of the socio-economic ladder, especially in countries of the Global South. Levels of unemployment are often extremely high, educational attainment (due to exclusion) is low and disabled people experience broad disadvantage in access to essential resources and services, including housing, health care and transportation. This state of affairs reflects contraventions of universal human rights, which are enshrined in several conventions of the United Nations. These principles function as laws in countries that have signed up to conventions such as the **Universal Declaration of Human Rights** (UNDHR), the **UN Convention on the Rights of Persons with Disabilities** (UNCRPD), and others.

Since our concern is with education, let us take a look at how this right is protected. The UNDHR stipulates that everyone has the right to a quality education, while the UNCRPD makes particular reference to this right for disabled children and adults. Article 24 of the Convention requires that the right to education of disabled people must be realised without discrimination, and based on equal opportunity between persons with and without disabilities. Importantly, "education" here refers not only to schooling, but also to tertiary education, vocational training, adult education and lifelong learning.

The **UN Sustainable Development Goals** (SDGs) are a worldwide call to action, aiming to end poverty, protect the planet, and ensure peace and prosperity for all. Unlike the **Millennium Development Goals**, the SDGs make specific reference to disability, inter alia guaranteeing inclusive and equitable education for all, through providing necessary assistance for disabled children and adults.

All three of these UN frameworks carry implications for improving the life-chances of disabled people, including clear directives to governments on how this can be achieved. As we begin to think about the potential of these conventions to stimulate progress towards realisation of the goal of inclusive, quality education for all, let us consider the situation of learners with disabilities in a country from the Global South.

What we see in this example is a situation where the reality "on the ground" reflects an ongoing contravention of not only the UNCRPD and the SDGs, but also provisions of the South African Constitution, which is a global model in its legal safeguards against discrimination.

CASE STUDY 2: The crisis in education for learners with disabilities in South Africa

Since becoming a democracy in 1994, South Africa has developed and attempted to implement a policy of inclusive education where learners with disabilities are accommodated in ordinary neighbourhood schools. In the past, such learners were either in no form of schooling or placed in segregated special schools, with so-called "white" learners being better provided for under the racist apartheid regime than learners of colour.

However, the process of implementing inclusion, which began with a policy published in 2001 (**Department of Education, 2001**), has unfortunately been marred by many problems. In 2016, a South African government report estimated that as many as 600 000 learners with disabilities in the country were in no form of schooling, while a report compiled by Human Rights Watch (**2015**) thoroughly described government's failures in this regard at many levels. Needless to say, exclusion from education very often paves the way for lives of economic vulnerability, based on unemployment and a lack of scholastic or vocational skills. Consequently, this mass exclusion presents the threat of a legacy of poverty and marginalisation for these members of the disability community.

For those disabled learners who were in school at the time of the report, a large proportion were placed in special schools. Here, too, there were problems. Low expectations and a poor standard of education were found at these schools, along with neglected infrastructure and inadequate living conditions. In both inclusive and special school settings, most South African teachers who teach learners with disabilities would have had no specialised training in disability inclusion.

As efforts were made to address the crisis, six factors have been identified as its main causes. These are:

1. Government's incomplete and erratic implementation of its own inclusive education policy across the nation.
2. A lack of inclusive education training and support for teachers, principals and education officials.
3. Problems with essential resources and infrastructure in both special and inclusive schools.

4. Ongoing structural inequality across the education system as a whole, reflecting historical racial injustice.
5. A lack of understanding among teachers, principals and other stakeholders of what is stipulated in law by the inclusive education policy, as well as the rights of the child enshrined in the South African Constitution and the UNCRPD.
6. Ongoing disablist prejudice enacted by communities and schools, involving beliefs that children and young people with disabilities cannot or should not be included in education.

In the next section we will examine how the requirements of the UNCRPD can be used to place legal pressure on government to address the situation. This work is typically performed by civil society organisations, which use the judicial system to hold governments accountable for their legal responsibility to uphold human rights. In part 2 of the case study, we will examine how a civil society organisation in South Africa's Western Cape province used the judicial system to force government to address the exclusion of learners with severe and profound intellectual disabilities from the education system. But first let us explore how the performance of governments in relation to the stipulations of the UNCRPD can be monitored, and hopefully enforced.

Monitoring implementation of UN conventions

The most detailed and far-reaching of the UN conventions with respect to the lives of disabled people is the UNCRPD. As we have seen, signatory countries have committed to implementation of its objectives and agreed to have their progress monitored on an ongoing basis, a function which is performed by the UN Committee on the Rights of Persons with disabilities.

Each participating country must submit a state report on progress with implementation within two years of signing the convention, and thereafter provide further reports to update progress every four years. Importantly though, it is not only the voice of governments which the Committee listens to in assessing a country's performance in adhering to the principles of the Convention. A so-called "alternative report" is also submitted after each state report. This is a document compiled by civil society organisations working in the disability and development arena, and is created as an independent, critical and alternative view to that presented by governments which, of course, seek to portray their efforts at disability equity in the best possible light. So, with ongoing monitoring in place, the signing of the Convention by a country's government implements a mechanism of accountability to international law.

When a government fails to honour its commitments to the Convention's stipulations, it is possible for individuals or organisations from that country to take legal action via the courts in order to force compliance. In essence, the judicial system has the role here of making legal pronouncements regarding what governments must do in order to fulfill their commitment to human rights – or, in this case, to equity and inclusion in the lives of disabled children and adults. But, as we can see from the ongoing exclusion of disabled learners from education in South Africa, the mechanism of accountability does not always work. Some critics would go even further and cast doubt on whether international frameworks of human rights, such as the UNCRPD, have the potential to be effective in promoting change across the nations of the world. According to this view, "human rights discourse" is a well-intentioned idea, but is ultimately unable to bring about the desired effect – that of changing the lives of members of vulnerable groups, such as the disability community.

Criticisms of human rights discourse

The idea of universal human rights and their enforcement across the world stems from the Global North. While agreeing with the principles of international conventions, many critics question their applicability in the Global South. This is because the possibility of enforcing such rights depends on circumstances which one is likely to find in Northern countries, while the situation in countries of the South may be very different indeed.

The possibility of enforcing the principles of, say, the UNCRPD, depends on the following factors:

1. **Does a nation's government have access to the necessary resources to provide for the human rights of its population?** Without these resources, the best intentions cannot be fulfilled.

2. **Are members of the population aware of their rights?** The logic of human rights discourse depends on individuals organising into groups and advocating for their rights. In order for this to occur, people need to know about and understand those rights.

3. **Do citizens have access to legal support and is there a functional legal system in the country?** Legal procedures are complex, slow and often expensive. Without the necessary guidance, support and resources, it will be impossible for most people in the Global South to engage in legal action. Further, if the judicial system is dysfunctional or corrupt, it may be impossible to achieve the ruling that the community requires.

4. **Are government agencies free of corruption?** If ministries within government responsible for delivering services such as education are corrupt, service provision will break down despite any directives from the courts.

In many countries of the Global South, some or all of the requirements listed above may not be present. Are human rights frameworks such as the UNCRPD of any use to citizens of these countries? In the next section we will see how, despite these many challenges, a civil society organisation in South Africa has managed to use the judicial system to make government accountable to its responsibility of education for all. However, as we shall see, it was found in this case that obtaining a pronouncement from the courts demanding that government take action is really only the first step.

CASE STUDY 3: Access to education for learners with severe to profound intellectual disability in South Africa (Wood et al., 2019)

Children and adults with intellectual disability are among the most marginalised groups in society. Historically, children with severe to profound intellectual disability (SPID) were regarded as "ineducable", leading to no or minimal efforts at providing this group with educational opportunities. This assumption has been proven to be wrong and children with SPID can certainly benefit from the right forms of educational experience.

In South Africa, the myth of "ineducability" remained present in government policy long after it had been discredited elsewhere. What this meant was that government responsibility for the well-being of children with SPID was managed by the Department of Social Development (DSD), with no involvement at all from the Department of Basic Education (DBE). In other words, government, through the DSD, took some responsibility for the care of children with SPID, often in what are termed "special care centres", but allocated no funds or resources to the education of this group.

In 2010, a civil society organisation called the Western Cape Forum for Intellectual disability (WCFID) won a legal case against the state for its failure to provide education for learners with SPID in the province and across the nation. This was made possible by support from a legal services, non-governmental organisation, which provided pro bono consultation and representation.

The case was based on the fact that government failed to fulfill its own commitments, in terms of the UNCRPD and the Constitution. Opposing this view, the Ministry of Education argued that "no amount of education" would be of benefit to children with SPID, who should instead rely on the "imparting of life skills" by their parents – an antiquated view completely out of step with globally accepted principles of human rights in the disability field. In a landmark ruling, the courts found in favour of the WCFID and instructed government to create and implement a plan to provide appropriate, quality education to children with SPID within a prescribed time-frame. It would be easy to assume at this point that the battle had been won, but in fact there was much more to do.

In a situation where the courts need to instruct government to provide appropriate services, government is obviously challenged in terms of the capacity to do what is needed. In this case, it was the challenge of developing a curriculum for children with SPID, training carers as teachers, providing mobile teams of professional support staff to ensure the well-being of learners, and so forth.

Government also appeared resistant – more than a year after the ruling, no discernible action had been taken. Over time, the WCFID made many representations to government, offering its skills in creating new educational services. After some ambivalence, government began to engage, but what became clear was how much support government would need over an extended period in order to deliver on its mandate.

In this sense, the work of the WCFID and its partners had only begun with the legal victory, and they had to confront the challenge of careful, ongoing negotiation with government officials to ensure that decisions made were in the best interests of the children. Over time, budget allocation was made to roll out education and other support services for children with SPID not only in the Western Cape, but across the entire country.

There is no doubt that this is a success story which supports the usefulness of international human rights conventions, and the court ruling and subsequent developments gained much international attention. But the experience also offered valuable lessons about how legal directives are not enough, that governments need ongoing support from civil society organisations who possess experts in disability and development issues, and that the need to continually monitor government's performance is ever-present.

Conclusion

While there has been some progress over the past half-century towards equity and inclusion of disabled people across the world, there is still much to do. In fact, many scholars regard the achievements of the global disability movement thus far as disappointing.

Exclusion from education is only one aspect of the social oppression of disabled people, but it is a crucial one, and remains endemic, particularly across a host of societies in the Global South. The social model asks us to focus less on diagnosing the impairments of children with disabilities, and instead concentrate attention on creating educational environments that are inclusive of learners with a diverse range of learning needs. As we shall see later in this book, a global move from special towards inclusive education for learners with disabilities has been in evidence for at least three decades, and is supported by human rights principles which require that disabled people of all ages be supported to participate fully with their peers in all aspects of community life.

GLOSSARY: Social oppression

The process whereby certain groups in society are kept in culturally subordinate and/or economically deprived circumstances. A key aspect of this is internal to the individual, where beliefs about inferiority serve to silence expressions of suffering or dissatisfaction with social reality.

Human rights frameworks are but one important strategy for driving change, which also require community mobilisation, the empowerment of disabled people through inclusive development, and cultural shifts towards the inclusion of disabled lifestyles. The world's disability community already numbers around one billion people and its numbers are growing due to the ageing of the global population. Over the coming decades, demands for disability inclusion are set to become louder and more pervasive, leading to the creation of communities and societies that are more caring and inclusive to all.

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chapter 3

Disability Studies in Inclusive Education

Exclusion of children with disabilities from education: Roots and responses

Judith McKenzie

Chapter learning outcomes

After completing this chapter, you will be able to:

- Discuss the ways in which learners with disabilities may be excluded from education and what the implications are.
- Understand responses to educational needs of children with disabilities from a historical perspective.
- Analyse the guiding policies for schools and education systems in promoting the right to education for learners with disabilities.

Preparatory activities

WATCH: Afrika Tikkun empowerment programme

Creator: Afrika Tikkun
Date: 2014
Duration: 4 minutes

WATCH: South Africa: Children with disabilities denied education

Creator: Human Rights Watch
Date: 2015
Duration: 5 minutes

WATCH: Blind and partially-sighted pupils learn in appalling conditions in Limpopo

Creator: SABC News
Date: 2016
Duration: 2 minutes

WATCH: Legacy of exclusion: Disability & education in South Africa

Creator: Health-e News Service
Date: 2016
Duration: 25 minutes

REFLECTION

When you have viewed all of these videos, complete the table below, thinking of at least one reason for exclusion at these different levels.

Level	Reason for exclusion
Family	
School	
Community	
Educational policy	
Other	

READ: "Complicit in exclusion": South Africa's failure to guarantee an inclusive education for children with disabilities

Author: Human Rights Watch
Year: 2015
Estimated reading time: 2 hours
File size: 1.6 MB

Introduction

In **Chapter 2**, we thought about our own feelings towards disability and started to consider how our fears and misconceptions get played out in education. In this chapter, we will explore how exclusion happens as well as the historical roots of special education. We will then conclude with an overview of South African education policy.

Factors affecting the exclusion of disabled children from education

Globally, children with disabilities are being excluded from education. The United Nations Educational, Scientific and Cultural Organization (UNESCO) (**2018**) reports that some countries are making the transition to inclusion, but exclusion is still prevalent. For some, this means separate schooling systems in special education and for others this means total exclusion from education. The Global Education Monitoring Report (**UNESCO, 2020**) highlights the fact that laws in 25% of countries support providing education in separate settings or special schools and only 17% have laws that require inclusion. Even with these laws, it is still often the case that these provisions are not implemented. For example, in South Africa (as the videos show), education can be of very poor quality and some groups, such as those with multiple disabilities, stand a high chance of being left out. In the **previous chapter**, we explored the issue of understanding disability and how fear and prejudice can result in exclusion. There are also some other factors to consider:

Identification

While some disabilities are obvious and can be identified by the lay person, others are much more difficult to detect. For example, hearing loss and autism spectrum disorders might not be picked up in the early stages, resulting in missed early intervention opportunities and the provision of appropriate support in school. This contributes to the fact that children with a sensory, physical or intellectual disability are two-and-a-half times more likely to have never been to school than their peers without disabilities.

Financing

As countries attempt to address the issues related to disability identification, there will be more children with disabilities eligible to go to schools and the costs are likely to increase. In South Africa, the Western Cape Forum on Intellectual Disability (**Ngwena & Pretorius, 2012**) brought a court case against the South African government to provide financing for education for children with severe to profound intellectual disability. The judgement in this case meant that the government had to find money to grant these children their right to education as required by the Constitution. Another problem with finance is that funds tend to be allocated to special schools where a country has such schools or is in transition to inclusive education. Thus, it becomes very difficult to provide additional support in regular schools.

Teacher education

If all children are to learn together, then it is important that we understand that this does not mean that they all learn in the same way. For example, it is clear that a learner who is blind is not going to learn about, say, the national flag in the same way as a sighted learner. This means that teachers need to know how to be flexible and adapt the curriculum, and that they need to be trained how to do this. UNESCO (**2018**) reports that across 10 Francophone Sub-Saharan African countries, only 8% of Grade 2 and 6 teachers had received in-service training in inclusive education. Over 50% of teachers in Brazil, Colombia and Mexico reported a high need for professional development in teaching students with special needs. This is also true in South Africa, where teachers report that they do not receive training in inclusive education in their initial teacher training.

Impact of COVID-19

The impact of the COVID-19 pandemic cannot be ignored, as we still live with some of the consequences and need to pay attention to some of the lessons learned. UNESCO (**2020**) points out that the disruption of education and its associated services had a negative impact – not only on learning, but also upon the mental well-being of learners. These impacts were even greater for students with disabilities and their families. For example, online learning for blind students was extremely difficult to set in motion, especially in resource-poor settings. Children with autism spectrum disorders found it very hard to adapt to new routines and those with multiple disabilities missed out on rehabilitation services that they needed on an ongoing basis. As the pandemic recedes, we need to think of both how these issues can be addressed in future scenarios of school closure as well as what has been learned by innovative teachers, communities and families in overcoming these barriers. There is also the need to make up for lost time as we recover and rebuild.

Other barriers that result in exclusion

The Global Education Monitoring Report identifies multiple factors that result in exclusion. This report of 2020 notes that globally around 258 million children and youth were excluded from education, with poverty as the main obstacle to access. In low- and middle-income countries, adolescents from the richest 20% of all households were three times as likely to complete lower secondary school as were those from the poorest home. Barriers are based in background, identity and ability, including gender, age, location, poverty, disability, ethnicity, indigeneity, language, religion, migration or displacement status, sexual orientation or gender identity expression, incarceration, beliefs and attitudes. These barriers were exacerbated during the COVID-19 pandemic. The report estimates that about 40% of low and lower-middle income countries were not able to support learners experiencing these barriers during temporary school shutdowns.

In the next section, we will explore South African policy so that we can better understand where the gaps are and what our own role might be in addressing exclusion of children with disabilities.

Policy addressing the exclusion of children with disabilities from education in South Africa

In South Africa, there are 489 special schools, each of which caters for particular impairments; for example, there are schools for learners who are blind and partially sighted, D/deaf and hard of hearing, and intellectually and physically impaired (**Department of Basic Education [DBE], 2023**). There are also 813 "full-service" schools in South Africa. These schools have been set up to cater for a wide range of learning needs, including those related to disability, through teacher education and infrastructure development, and other school improvements. However, this does not mean that all children with disabilities are in school. In 2012, it was estimated that approximately 600,000 learners with disabilities were out of school (**DBE, 2023**). In 2022, there were 137,483 learners enrolled in special schools throughout the country (**DBE, 2023**), although this figure is now disputed by the DBE. In 2017 there were 11,461 learners on the waiting list for special schools (**Parliamentary Monitoring Group, 2017**). Exclusion from education is at odds with the South African Constitution, and is out of line with the policy intention of *Education White Paper 6: Special Needs Education* (EWP6) (**Department of Education [DoE], 2001**).

The Constitution of the Republic of South Africa (Act No. 108 of 1996) protects all those living in the country from any form of discrimination, including discrimination on the basis of disability (section 9(3)), and states that everyone has the right to basic and further education (section 29(1)). The South African Schools Act (Act No. 84 of 1996) (**RSA, 1996**) states that all children should be admitted to ordinary public schools, and that these schools should support children's various educational and other support needs without any discrimination. This includes, "as far as possible", children with special educational needs. Parents have the right to decide which type of school they would like their children to attend, including enrolment into a mainstream school instead of a special school.

EWP6 (**DoE, 2001**), which guides South African education policy regarding disability education, refers to "barriers to learning" rather than "special needs", as inclusive education policy aims to address *all* barriers – not only disability. EWP6 is aimed at accommodating all learners' needs, including learners with disabilities. The policy recognises that learners have diverse needs, which can result in barriers to learning and development if they are not acknowledged and addressed. These barriers arise not only from disability (as noted above), but also as a result of many additional factors, including inaccessible and unsafe environments, as well as inaccessible language of teaching and learning, among other factors. The policy was set up as a preliminary phase in the move toward inclusion over a 20-year period from 2001 to 2021. As of 2022, it has yet to be evaluated and revised.

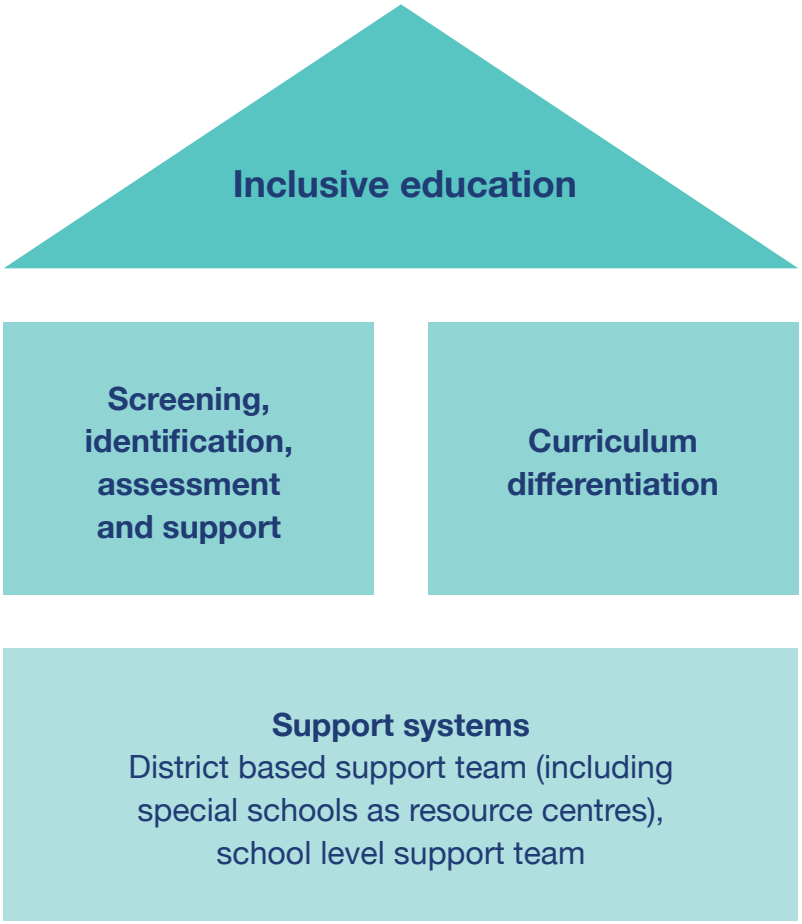

Figure 1: EWP6 pillars of inclusion

The implementation of EWP6 is supported through guidelines that focus on two pillars of inclusion: (a) screening, identification, assessment and support; and (b) curriculum differentiation. Both of these pillars are built upon support structures. This is illustrated in a simplified form in Figure 1.

The *Policy on Screening, Identification, Assessment and Support* (SIAS) (**DBE, 2014**) supports the first pillar and is the instrument that must be used for teachers to identify barriers to learning and determine the levels of support required. We will discuss this further in **Chapter 6**. SIAS identifies educational placement options for learners – in mainstream, full-service and special schools – through a systematic process of examining support needs.

Curriculum differentiation is addressed in the *Guidelines for Responding to Learner Diversity in the Classroom through Curriculum and Assessment Policy Statements* (**DBE, 2011**), which is used in conjunction with the *Curriculum and Assessment Policy Statements* (CAPS) adopted in 2011. The guidelines are aimed at assisting teachers to develop differentiation strategies in order to accommodate learners who face various barriers to learning in the classroom. We will examine this further in **Chapter 6** and take this important aspect further with discussions of Universal Design for Learning in **Chapters 10**, **11** and **12**.

GLOSSARY: Intersectionality

The concept of intersectionality was developed by Kimberlé Crenshaw in 1989 to express the idea that different forms of oppression are linked to each other and that everyone has their own unique experiences of discrimination and oppression, depending on their unique identity. We need to think of all the factors that can marginalise people – gender, race, class, sexual orientation, physical ability, etc. – because none of these exist on their own. A person with a disability has a gender, race, class, etc., just as a gay person might be black or white or have a disability.

It is important that we look at disability through an intersectional lens because if we look at disability in isolation we might not see multiple causes of exclusion and could end up perpetuating injustice by ignoring systems of inequalities. ”Disability” is not the only category that results in exclusion or defines relationships power. A black person with a disability might experience things differently to a white person with a disability. We know that women and girls with disabilities are almost twice as likely to experience domestic violence as women without disabilities.

The intersection between disability and poverty results in high rates of exclusion. The South African National Census of 2011 showed that persons with severe disabilities are the most disadvantaged when it comes to educational outcomes (**Statistics South Africa, 2014**). This echoes international findings which illustrate that, on average, persons with disabilities (when compared with persons without disabilities) are less likely to ever attend school, more likely to be out of school, less likely to complete primary or secondary education, and less likely to have basic literacy skills (**UNESCO, 2018**). Thus, if disability is combined with poverty (which is a leading cause of exclusion), it becomes clear that the children who are least likely to access and participate in education are children with disabilities who live in poverty.

The policy refers to disability as an "intrinsic" barrier which resides within the learner; whereas poverty, for example, would be seen as "extrinsic", that is, external to the learner and located within the social system. This perspective is, however, problematic for two reasons:

1. Disability is not "intrinsic" to a person, but is an interaction between a person with an impairment and their environment.
2. Disability does not operate in isolation from other social markers. A person with a disability also has gender, racial and class identities (amongst others) and these interact in an intersectional way to either compound or lessen social disadvantage.

Policy implementation

Although this policy framework is in place in South Africa, implementation lags far behind. It is clear that the quality of education that the majority of learners with disabilities receive is not up to standard, with many learners being excluded from accessing any form of schooling and many learners in special schools having limited subject choices and learning support (**Human Rights Watch, 2015**). It also appears that learners with disabilities have not been provided with reasonable accommodation to ensure that they can access education that is on an equal basis to that of their peers (**Human Rights Watch, 2015**). As noted above, one of the biggest challenges in educating learners with disabilities is the entrenched attitude among teachers and within schools that children with disabilities are not able to learn to the same standard as children without disabilities (**Human Rights Watch, 2015**). In addition, research shows that South African teachers have concerns about the inclusion of learners with disabilities in mainstream schools, including being doubtful about the ability of these learners to participate academically and socially in the classroom, and being unsure of the consequences of inclusion (**Donohue & Bornman, 2014**).

Many South African teachers work from the premise that separate learning opportunities are more appropriate than inclusion in their classroom practice. This is a reflection of training that focuses on a deficit and individualised approach to barriers to learning and development (**Engelbrecht et al., 2016**). Overall, the lack of adequate teacher education for teaching learners with disabilities has been identified as a cause of poor quality education for these learners (**Human Rights Watch, 2015**).

Responsibilities of schools

In EWP6, regular schools have the responsibility to provide education for all children by providing curriculum differentiation and becoming skilled in screening and identification of disabilities. Classroom teachers are expected to differentiate their teaching to reach a range of diverse learning needs. If they try this approach and are unsuccessful, then the classroom teacher needs to approach the school-based support team (SBST) with a record of what they have tried and what worked and what did not work. The SBST will then work with the teacher to develop further strategies which are not limited to the classroom but may, for example, include parent meetings, accessing community support or referral to a health facility.

Should the recommendations of the SBST prove ineffective, the district-based support team (DBST) may be approached for further guidance. The DBST includes district officials, members of special schools that serve as resource centres and other co-opted members as needed within the district. Should a particular child have support needs that cannot be met within their current placement, the DBST may recommend another placement (including transfer to a special school).

This framework is recommended by EWP6, but as indicated above, this is not always the reality and is only being implemented in parts. One of the issues observed is that children with less severe disabilities (or with what are sometimes referred to as “high incidence” disabilities, including attention deficit and hyperactivity disorder or learning disabilities) are more frequently catered for in regular schools, while those with severe sensory, physical or intellectual disabilities are more likely to be excluded or placed in special schools. Children who have multiple disabilities, behavioural challenges or are incontinent may find it difficult to get into any form of education at all, although this has improved somewhat as a result of the court case brought by the Western Cape Forum on Intellectual Disability asserting the right of these children to education.

Conclusion

In this chapter, we discussed how children are excluded from the education system and some of the reasons for this exclusion. We have also examined the relevant policy for inclusion in South Africa and the responsibility that this places on schools. It became clear that schools are currently only partially meeting these responsibilities and we have emphasised the role of teacher education in perpetuating exclusion. In the **next chapter**, we will consider how the approach, Disability Studies in Education, enables us to apply a social understanding of disability to the problem of exclusion.

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section B

Disability Studies in Inclusive Education

Tension between disciplines, critical examination of special and inclusive education and policies, and developing an inclusive school

chapter 4

Disability Studies in Inclusive Education

Overview: Critical examination of special and inclusive education and policies enabling inclusive education

Judith McKenzie

Section learning outcomes

After completing this section, you will be able to:

- Motivate for the theoretical framework of Disability Studies in Education (DSE) as a way to include a social model understanding of disability in an educational context.
- Argue for inclusive education as a means of promoting equity and social justice for learners with disabilities.
- Review selected global policies and frameworks for inclusive education in terms of DSE.
- Identify national policy guidelines that support inclusive education in South Africa.
- Apply screening, identification, assessment and support processes within a multidisciplinary practice.

Introduction

In this section, we begin to explore how inclusive education practices can be applied. We bring an understanding of Disability Studies to this practice, because we want to ensure a social justice approach to education that establishes and promotes the right to education for students with disabilities. In **Chapter 5**, we explore how applying the ideas of Disability Studies in an approach called Disability Studies in Education (DSE), can help us to understand ways that we can challenge ideas around disability that perpetuate exclusion and which then justify a segregated approach. At the same time, we can start to understand that inclusion is not just about lumping all children together but rather about acknowledging and celebrating differences, and understanding individual needs in the context of an environment that welcomes everybody. You will begin to understand that DSE is about applying the social model of disability in education, so that the focus becomes the learning environment, rather than the child's deficits or disabilities. When we accept that disability is not just about a medical condition, but rather is an interaction between the person with an impairment and their environment, then we can work toward establishing effective learning environments for all children.

Chapter 6 in this section deals with the hard part. How do we make these ideals a reality? It is all very well to be critical of how schools and education departments operate, but how does one translate the right to education into a reality for the children that it is supposed to serve? There are a number of global policies that give guidance to how education systems can and should approach this.

We mention several of them here because we can look to them for guidance in our practice and also to support our advocacy for the right to education. We then zone in on one particular process which is fairly well developed in the South African context and which shows the provision of support in a systemic approach. The focus is on the implementation of the Screening, Identification, Assessment and Support (SIAS) strategy of the South African systems and we will see how it can be applied. This is a specifically South African policy but the principles of allocating the necessary support to students can be seen in other countries as well.

We have chosen to start this section with the story of Jacqui and her son, Matt, and their journey toward establishing their right to inclusive education. We take this perspective because we want to put families and children with disabilities at the centre of our discussions in this text. What is very interesting about this story is seeing how inclusion is not just a once-off event, but rather a process that this family and their son's teachers are on together. You will also notice the emphasis on how the school environment needs to adapt for Matt (rather than trying to "fix" him so that he can be the same as the other children) so as to provide support for him to achieve his potential.

Insider view: Perspectives on education

In this transcript from a video interview in the "**Education for All: Disability, Diversity and Inclusion**" Massive Open Online Course (MOOC), Jacqui Tooke shares her experience of finding a school that includes her disabled son, Matt. Her experience is a good place to start in understanding how inclusive education is enacted from a family perspective.

WATCH: Education for all: Week 2 – Jacqui's story

Creator: Jacqui Tooke
Date: 2018
Duration: 11 minutes

My son Matt was born with a genetic syndrome. The language the doctors used to describe Matt's syndrome terrified us and shattered our dreams for his future. We did not know what his education would look like. Only once we began talking to people and reading about the available options did we feel hope; educational inclusion appealed to us. It was important to us to know that Matt could attend a mainstream government school and not be segregated to a special school; that he could be accepted for who he was and learn alongside children from the community. And so began our journey into exploring inclusive education for Matt.

Our friends and family would ask, "What does inclusion mean?" To us, inclusion means that Matt could be part of mainstream society and attend a mainstream school where he would have the school community's support enabling him to thrive while remaining true to himself. People also ask us about his future. We take it one year at a time because we do not know. Though, three things remain important to us about the decisions we make regarding Matt: is he learning, participating, and is he happy? We want him to be included, growing, and excited about learning regardless of his pace compared to his peers. We want him to be an active member of any group he finds himself in – such as sports teams or in the classroom. We constantly check to see if inclusion is working, allowing him to be happy, confident and comfortable in himself.

Some friends and family believe that it is cruel to send Matt to a mainstream school because of his disability. They fear that he will be bullied. I acknowledge their fears and a part of me wishes to keep him safe at home, away from the world that has the potential to hurt him. Therefore, I understand the desire for parents to send their children to special schools. But we realised that if we do not want him to be segregated from mainstream society as an adult then we have to start now. We need to foster an environment where he learns the skills to connect with a variety of people. Matt's inclusion journey has been successful because the school made an effort to get to know Matt before and in the early days of him joining the school.

We have experienced over the last couple of years that everyone benefits and grows from Matt's inclusion. Other school parents have told me how their children are showing more compassion, empathy and consideration for others because of learning to engage with Matt. We passionately pursue Matt's inclusion into mainstream society because he and the other children all benefit.

REFLECTION

What strikes or surprises you about Matt's story from your perspective? If you are a teacher, have you thought of things in this way? What do you think this story tells us about how a social model of disability is being enacted in Matt's case?

chapter 5

Disability Studies in Inclusive Education

Understanding Disability Studies in Education

Danielle Cowley & Judith McKenzie

Chapter learning outcomes

After completing this chapter, you will be able to:

- Motivate for the Disability Studies in Education (DSE) theoretical framework for understanding of disability in the educational context.
- Argue for inclusive education as a means of promoting equity and social justice for learners with disabilities.

Preparatory activities

WATCH: Disability. Dance. Artistry.

Creator: Simi Linton
Date: 2016
Duration: 2 minutes

WATCH: I'm not your inspiration, thank you very much

Creator: Stella Young
Date: 2014
Duration: 9 minutes

READ: Social model of disability: Easy read

Author: ShapeArts.org.uk
Estimated reading time: 10 minutes
File size: 4.3 MB

REFLECTION

What are some of the issues that people with disabilities would like to bring to the attention of the general public regarding the way that they are perceived?

Introduction

In **Chapter 3**, we talked about the right to education and how exclusion operates, with a specific focus on disability. We came to understand that children with disabilities are currently being excluded from education and we explored some of the reasons why this might be happening, recognising at the same time that disability is not the only reason for exclusion.

In this chapter, we will begin to move into building an understanding of how education has been provided historically in different contexts and how we might understand this through adopting a DSE framework. We will then explore the differences between inclusive and special education and argue for an inclusive education system as a means for achieving social justice for people with disabilities. As you can see, there is a lot to cover, so we will provide additional resources which you can refer to in your learning journey. But before we begin the discussion, we need to start with reflecting on the voice of people who are directly affected by these issues. Think about Jacqui and Matthew's story that you read in **Chapter 4** and keep it in mind as you think about disability in education.

WATCH: What is Disability Studies in Education and why does it matter?

Creator: Danielle Cowley
Date: 2021
Duration: 11 minutes

This video engages with the discipline of Disability Studies and how it forms the basis for the DSE approach, which helps us to understand the actual practices of schools and how our understanding of disability can affect the way that we see education.

Firstly, we will have a brief discussion of Disability Studies and then apply this to DSE.

Understanding Disability Studies

As you will have seen in **Chapter 2**, Disability Studies moves from understanding disability as something that is **wrong** with a person, to examining the social context where a person with an impairment functions. The **Society for Disability Studies**, one of the first associations to promote the discipline, states that: "Disability Studies recognizes that disability is a key aspect of human experience, and that the study of disability has important political, social, and economic implications for society as a whole, including both disabled and non-disabled people".

According to Ferguson and Nusbaum (**2012**) there are three important aspects of Disability Studies that we need to think of for understanding inclusive education. The first one is that **the study of disability must be social.** Essentially, this means that disability is not solely viewed as a deficit or problem to be fixed; but is instead a complex interaction between a person and their social environment. In this interactionist view, the problem does not lie within the individual, but rather on the interaction between the environment and the person with an impairment. This idea of an interaction is reflected in the definition of disability used by the World Health Organization (**2001**) and the Convention on the Rights of Persons with Disabilities (**United Nations, 2006**), both of which acknowledge the importance of recognising environmental barriers. In the education context, this means that we do not only look at the learner as being unable to cope, but rather at the environment and the learner. What is the fit and how do they interact together? How can we modify the learning environment to ensure the full participation of people with disabilities?

A second concept explored by Ferguson and Nusbaum is **that the study of disability must be interdisciplinary**, similar to other established fields such as gender studies or ethnic studies. Disability Studies is concerned with disability in its totality and must be interdisciplinary in nature if it is to flourish and truly affect change in schools. Special education has dominated the discourse of disability in the context of education and continues to hold the authoritative position in terms of what it means to educate students with disabilities. The idea of special education requiring "expert" knowledge has discouraged engagement with people with disabilities, as it implies that there is special knowledge that is needed to work in this area. However, if we intend for disability to be part of the fabric of diversity, then its study must be interdisciplinary in nature. Our understanding can draw on multiple disciplines and is not confined to health sciences, rehabilitation or special education.

The third important concept is that **the study of disability must be participatory.** Students with disabilities and their families must be positioned as active participants in teaching, as well as research. To Ferguson and Nusbaum (**2012**) this means not only driving the questions that get asked, but also thinking about who gets to ask those questions. As practitioners in the field

of inclusive education, we might want to ask ourselves questions such as:
What is my position as regards disability? How do I promote the voice of people with disabilities and address power imbalances that are deeply entrenched in our society? How can I support and mentor teachers and students who identify as disabled so that they are able to succeed and flourish as teachers and learners? How do I ensure that we value the voices of disabled people, even young disabled people, so that learners with the most complex disabilities or communication needs have a say in their education, see themselves in the curriculum, and feel a sense of belonging in their schools and classrooms?

Disability Studies allows us to ask different questions about disability, while cementing disability as a natural part of the human experience. Disability Studies also pushes inclusive education beyond just another set of practices or a programme. An inclusive schedule is not enough. It's not enough for the child with a disability to just go to music class with her non-disabled peers. True inclusion requires us to not only ask new and difficult questions about the meaning of disability, but to take action to look at our schools, communities and workplaces and challenge sites of exclusion. Disability Studies tells us that it is not enough to technically put inclusive practices in place, as practices and schedules can easily be undone without an ideological commitment to an understanding of true inclusion and belonging.

Disability Studies in Education

WATCH: Making sense of special and inclusive education

Creator: Danielle Cowley
Date: 2021
Duration: 30 minutes

Now that we have placed Disability Studies at the centre of our understanding of disability, we can begin to apply it in the field of education. This will help us to make sense of special and inclusive education and to understand how DSE informs the work of inclusive education. Traditional special education differs from DSE because its proponents believe that the purpose of special education is to change students through improving their performance or "correcting" their deficits. This reflects a medical model of understanding disability. However, within DSE, while it is recognised that enhancing performance is valuable, a greater focus is placed on adjusting environmental limitations, such as the curriculum, instruction and the classroom climate. While traditional special educators believe that special education prepares students for the post-school world, DSE proponents aim to create a caring society that accepts human difference (**Baglieri et al., 2011**).

In becoming critical inclusive educators, students need to not only see the oppression of exclusion and ableism, but also to develop concrete ways to create change and remain resilient. Two common frameworks DSE practitioners commonly use to ground their classroom practices include the **least dangerous assumption** (**Donnellan, 1984**) and **presuming competence** (**Kliewer et al., 2006**). The concept of least dangerous assumption is focused on linking poor student performance to instructional inadequacy, rather than perceived student deficit. The criterion of least dangerous assumption holds that in the absence of conclusive data, educational decisions ought to be based on assumptions, which, if incorrect, will have the least dangerous effect on the likelihood that students will be able to function independently as adults. Donnellan (**1984**) asks us about the consequences of our assumptions. One can easily look to the past as evidence of our society's dangerous assumptions regarding people with disabilities, considering institutionalisation, sterilisation and euthanasia, just to name a few. But we can look to the present for evidence as well. What are the consequences of excluding students with disabilities from general education classrooms, peers and curriculum? Are they not more dangerous than the alternative?

Author reflection

One example of the least dangerous assumption and action happened to me several years ago when I was asked to work with a segregated school for students with disabilities on how they could become more inclusive. A group of very well-meaning teachers were taking me on a tour when we came across a very large and organised space on the lower level of the building. The teachers were very excited to tell me about this new, "pre-vocational space" for their first-graders. They showed me all the bins of items to be sorted and the little timecard punch in the wall, where students would, "clock in and out". I began to get panicky when in this room, as I had recently left my position working with youth at a sheltered workshop and this was bringing back too much trauma. I had to leave when a teacher mentioned isn't it great how we are preparing them for their future and sheltered work. That is a very dangerous, but unfortunately very common, assumption to be made for kids with complex learning needs. Instead of focusing on accessing communication, expanding language or learning in a text-rich environment, the curriculum for these little first-graders was boxes, bins, mittens and time clocks. (Danielle Cowley, 2021)

Biklen and Burke (2006) describe the ways in which the least dangerous assumption results in a framework for understanding student engagement called **presuming competence**. To presume competence requires teachers, parents and others to support the person in demonstrating their agency. As the authors further note, presuming competence means approaching students with disabilities as thinking people with ideas about their lives, giving them the benefit of the doubt and looking really hard for evidence of competence. This means that teachers unconditionally accept the participation of students with disabilities in general education classrooms and problem solve when troubles arise through dialogue with students and families, and adapt the learning environment to meet the diverse needs of all students. As you can imagine, there are many ways to put this belief into practice.

Baglieri et al. (2011) argue that strategies related to accommodations and modifications are oftentimes viewed as only necessary for students with disabilities. This can result in stigma, a conceptualisation of such practices as extra work for both teachers and students; it also perpetuates the segregating labelling of student need in terms of either special or regular education. Instead, the authors offer Universal Design for Learning (UDL) as one approach to try to change our practices. Rather than changing our students and helping teachers align themselves with a DSE frame of thought, UDL is intended as an approach to all teaching situations which anticipates the diversity of learners, not only due to disability but on other dimensions of difference as well.

We will go into much more depth on the practice of UDL in **Chapters 10**, **11** and **12**. For now, it is important to note that UDL is not without its trouble spots. While the central focus of UDL is on diversifying access to the general education curriculum, the framework falls short when diversifying actual content. The white, able-bodied, middle-class perspective remain central. Baglieri et al. (2011) argue that the content addressed through UDL must focus on alternate curricular content that repositions the identities of marginalised learners as content worthy of instruction. They argue that UDL should closely account for both content and skills taught so that students are able to assert their racial, ethnic, language and ability identities.

Inclusive and special education

In this section, we draw on the paper by Slee, Corcoran and Best (2019), entitled “Disability Studies in Education: Building platforms to reclaim disability and recognise disablement”. They argue that DSE poses a necessary challenge to traditional discourses of special education because: “Special education has proven its resilience and willingness to appropriate the discourse of inclusive education in order to adapt and sustain its core assumptions about children with disabilities and their education” (p. 3).

Slee et al. (2019) point out that the drive to provide education for people with disabilities has traditionally been conditional on their being placed outside of the mainstream education system, enabling the development of "co-dependence between the regular and the special school in the identification, calibration and management of diverse student populations" (p. 5). They position DSE as anchored in the promotion of the right to education for children with disabilities and, therefore, adopting a political position, which is in contrast to what they term "the advancing appropriation of inclusive education by neo-special education" (p. 7). DSE, as we discussed in relation to Disability Studies above, is necessarily interdisciplinary and draws on a wide range of methodologies that serve to challenge the oppression of people with disabilities in education.

In adopting a DSE approach, the notion of segregation on the basis of diagnostic categories is rejected and the impact of school culture, pedagogy, assessment practices and other aspects of the learning environment are foregrounded in research and practice. While the focus is on disability, there is an acknowledgement that there are complex interactions between different forms of marginalisation that need to be addressed. In this context, it remains the case that research from the Global South remains under-represented. Finally, there needs to be a broader understanding of education as lifelong learning, not just as schooling (Slee et al., 2019).

Conclusion

In this chapter, we have taken a step back from the practice of inclusive and special education to question the assumptions that underlie these approaches. We have done this with reference to Disability Studies and DSE. What emerges from this exploration is that it is not enough to just include learners with disabilities in classrooms with adaptations. We need to commit to the right to education for these learners and ensure that their voices are heard. We have shifted the focus firmly to the education environment and the kind of support that is needed, but we have also indicated that this environment must change fundamentally to be a place where the least dangerous assumption is made and competence is presumed.

In the last section of this chapter, we noted that there is less research on the topic from the Global South than from the North. As practitioners in South Africa and in Africa, we need to make a critical reading of these texts and ask ourselves how they apply in our contexts and what the salient differences between these contexts are. We will further explore a decolonial perspective on DSE in Chapter 9.

This chapter has drawn extensively on the following references and we recommend that you take the time to read and understand the original versions. Try to summarise the author(s) central point. What was their "take-away" message? What did you learn from this reading? Did you gain a new insight and/or was anything familiar?

READ: Disability Studies in Education: The need for a plurality of perspectives on disability

Author: Susan Baglieri, Jan W. Valle, David J. Connor & Deborah J. Gallagher
Year: 2010
Estimated reading time: 2 hours
File size: 271 KB

READ: Disability Studies: What is it and what difference does it make?

Author: Philip M. Ferguson & Emily Nusbaum
Year: 2012
Estimated reading time: 1.5 hours
File size: 1.3 MB

READ: Defining school inclusion for students with moderate to severe disabilities: What do experts say?

Author: Diane Lea Ryndak, Lewis Jackson & Felix Billingsley
Year: 2000
Estimated reading time: 2 hours
File size: 106 KB

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chapter 6

Disability Studies in Inclusive Education

Enabling inclusive education: Global policies and local enactment

Judith McKenzie & Berenice Daniels

Chapter learning outcomes

After completing this chapter, you will be able to:

- Review selected global policies and frameworks for inclusive education in terms of Disability Studies in Education (DSE).
- Identify national policy guidelines that support inclusive education in South Africa.
- Apply screening, identification, assessment and support processes within a multidisciplinary practice.

Preparatory activities

ACTIVITY

Estimated time: 45 minutes

This activity will help you generate a scenario that is relevant to your context which you can use to assess how policy might be applied.

Prepare a two-page "story" (in narrative form) about a child with a disability or who experiences barriers to learning based on someone that you know, are working with or have worked with in the past.

Introduction

In the **previous chapter**, we explored in some depth how and why we choose to apply a DSE approach to inclusive education. We talked about this in a fairly theoretical way, but in this chapter, we are going to ask: What does this look like in the real world? Firstly, we will look at significant policies and guidelines through a DSE lens and then we will examine a specific process that seeks to operationalise these goals in the South African context; namely, the South African Department of Basic Education (DBE) Policy on Screening, Identification, Assessment and Support (SIAS) (**DBE, 2014**).

Review of selected global policies and frameworks

To recap our discussion in **Chapter 5**, the social model of disability underpins the whole idea of inclusive education, as we have seen in the DSE approach. We remind ourselves that exclusion arises because of the way that society constructs disability as deficit and imposes barriers to participation. Inclusive education arose from a concern about who is included and who is excluded. It was also a political act, in that it questioned social values, priorities and institutions that are ableist and exclude people with disabilities.

GLOSSARY: Ableism

"Ableism" refers to discrimination against people with disabilities on the basis of a set of prejudices. The term is similar to "sexism", "racism", "ageism" and other "isms". Ableism refers to the tendency in society to value and promote certain abilities over others. Central to this concept is the idea being "normal". If a person deviates from the ideal of bodily "wholeness", that difference is seen as being a deficit, a deviance or something lacking that needs to be fixed, or isolated. This often leads to a response that is discriminatory (such as exclusion or segregation) and is often disempowering, as the person with a disability is seen to be incapable of addressing their own needs (**Wolbring, 2008**).

An inclusive approach celebrates diversity as something that we should value. People are all different – whether it be on the basis of race, gender, class or disability, there is a huge amount of variation in the human race which we need to celebrate and cater for. Looking at inclusive education against this background as a political movement, we can think of it as being similar to feminist and anti-racist movements, but with a specific focus on people who have bodily impairments.

There is a wealth of information and policy documentation on inclusive education, but for the purposes of our work we are going to focus only on five important guiding documents. These are:

1. The Salamanca Statement (**UNESCO, 1994**)
2. The United Nations Convention on the Rights of Persons with Disabilities (**United Nations, 2006**)
3. The Sustainable Development Goals in 2016 (**United Nations Department of Economic and Social Affairs, 2016**)
4. The General Comment No. 4 on Article 24 by the Committee on the Rights of Persons with Disabilities (**United Nations, 2016**)
5. The Global Education Monitoring Report 2020: Inclusion and education: All means all (**UNESCO, 2020**)

The Salamanca Statement (1994)

The United Nations Educational, Scientific and Cultural Organization (UNESCO) held a conference in Salamanca, Spain, in 1994 on what was termed "special needs" at that time. The conference recommended that schools should accommodate all children, regardless of their physical, intellectual, social, emotional, linguistic or other status. This should include children who are disabled or gifted, living on the street and working, from remote or nomadic populations, from linguistic ethnic or cultural minorities, and other disadvantaged or marginalised identities. Thus, right from the beginning, the idea of inclusive education was not only focused on children with disabilities, but also children who are excluded from education for many other reasons. **The Salamanca Statement** and Framework for Action on Special Needs Education (**UNESCO, 1994**), which arose out of the conference, provided a basis for much of the subsequent inclusive education policy development.

The Statement points out that "regular schools with an inclusive orientation, are the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education, moreover, they provide an effective education to the majority of children, and improve the efficiency and ultimately, the cost effectiveness of the entire education system".

This provides three critical arguments for inclusive education: (1) to stop discrimination against people with disabilities and other forms of diversity; (2) to provide an effective education for those who were currently excluded; and (3) as a cost-effective way of providing education for all. On this basis, the Salamanca Statement adopted three principles: (1) every child has a fundamental right to education and must be given the opportunity to achieve; (2) every child has unique characteristics, interests, abilities and learning needs; and (3) education systems should take into account the wide range of these characteristics. Ultimately, this is about recognising that all children are different, all children have the right to education, and education systems must adapt to meet their needs. In this approach, it is not the child who needs to change, but rather the education system itself.

Article 24 of the United Nations Convention on the Rights of Persons with Disabilities (2006)

The United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) was developed at the United Nations with the participation and strong voice of people with disabilities. Article 24 of this convention is particularly focused on inclusive education, stating that countries who sign the Convention shall ensure an inclusive education system at all levels and lifelong learning. Thus, it is not only about the school level, but also early childhood development and higher education as well as adult education and ongoing professional development.

The countries that have signed this convention must ensure that persons with disabilities receive the support required within the general education system to facilitate quality education. They should receive effective individualised support measures that are provided in environments that maximise academic and social development, consistent with the goal of full inclusion. This means that real inclusion only happens when the right support is provided in the mainstream.

There are additional specific provisions within Article 24, which focus specifically on the needs of children with disabilities. We need to bear in mind that the Salamanca Statement and the Sustainable Development Goals (elaborated upon below) are both clear that inclusion is not only about children with disabilities, but at this point we are focusing on children with disabilities. These specific requirements include facilitating learning braille, alternative script, augmentative and alternative modes of communication, facilitating the learning of sign language, and promoting the linguistic identity of the deaf community.

Article 24 emphasises that education of persons who are blind, deaf or deaf-blind must be delivered in the most appropriate languages and modes of means of communication. The UNCRPD notes that when these special provisions are made, it should be done in an inclusive environment, so that the person with a disability has access to the same services as everyone else, as well as the additional support or “reasonable accommodation” that they require. Therefore, they should not only get the “special” services – they should get both the services provided for all other children as well as the additional services.

A final important point from the Convention that is relevant for a consideration of special schools is the common practice of removing children from their families in order to access services. The Convention promotes the right of children to live with their families and, therefore, attend local neighbourhood schools where their siblings would be enrolled.

GLOSSARY: Reasonable accommodation

The term "reasonable accommodation" refers to: "necessary and appropriate modification and adjustments not imposing a disproportionate or undue burden, where needed in a particular case, to ensure to persons with disabilities the enjoyment or exercise on an equal basis with others of all human rights and fundamental freedoms" (**United Nations, 2006: Article 2**). "Reasonableness" refers to an analysis of the need for the accommodation in light of the expected goal of countering discrimination, balanced with the availability of resources and financial burden. In terms of education, it is understood as an individualised process that needs to happen in addition to the overall accessibility or inclusivity of the learning environment. There is a common misperception that all students should be treated equally and that it is not "fair" to make accommodations on account of their disability. However, this is an important way of levelling the playing fields and equalising opportunity for all students to achieve.

The Sustainable Development Goals (2016)

We now move on to the very big global picture, which is not only about disability and not only about education in discussing the **United Nations Sustainable Development Goals** (SDGs). These goals, which were implemented in 2016, aim to guide the development agenda of the whole planet and represent a plan of action for people, planet and prosperity. There are 17 SDGs that balance the three dimensions of sustainable development; that is, the economic, the social and the environmental.

The SDGs resulted from an inclusive process of consultation in the United Nations. In terms of inclusive education, the one that we focus on is **SDG 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.** The inclusive element is central, but education also needs to be equitable; that is, it should be fair for everybody and everybody should have access. There is recognition that fair access is not enough, but that education also needs to be of good quality and should be accessible across one's lifespan, rather than only being about schooling. An additional requirement of SDG 4 is that learning should be relevant to the lives of the children or adults who are being educated. SDG 4 recognises that education is a fundamental right that enables other rights. For example, the right to employment is dependent on the right to education. If you have not had a decent basic education, it's hard to find decent employment.

SDG 4 is broken down into **10 targets**, against which its implementation is monitored. Within these targets, disability is seen as an issue that needs special intervention, just as children who have chronic illnesses might need it, or children who are migrants, orphans and have other forms of vulnerability. The thrust of the SDGs is that no-one should be left behind, and the needs of those who are the most excluded need to be accorded the highest priority.

General Comment No. 4 on Article 24 (UNCRPD) – the right to inclusive education (2016)

General Comment No. 4 of the UNCRPD was released in 2016 – 10 years after the Convention was ratified in 2006. The document notes that despite the progress achieved in the Convention, there remain profound challenges to education for children with disabilities. In 2016, many millions of persons with disabilities continued to be denied the right to education, and for others education was available only in isolation from their non-disabled peers, often being of an inferior quality. The Comment questions why this is still happening and what needs to be done about it. One of the helpful aspects of the document is its clear statement on how inclusive education is envisaged for people with disabilities.

GLOSSARY: Inclusion

Ensuring the right to inclusive education entails a transformation in culture, policy and practice in all formal and informal educational environments to accommodate the differing requirements and identities of individual students, together with a commitment to removing the barriers that impede that possibility. It involves strengthening the capacity of the education system to reach out to all learners. It focuses on the full and effective participation, accessibility, attendance and achievement of all students, especially those who, for different reasons, are excluded or at risk of being marginalised. Inclusion involves access to and progress in high quality formal and informal education without discrimination. It seeks to enable communities, systems and structures to combat discrimination (including harmful stereotypes), recognise diversity, promote participation and overcome barriers to learning and participation for all by focusing on the well-being and success of students with disabilities. It requires an in-depth transformation of education systems in legislation, policy and the mechanisms for financing, administering, designing, delivering and monitoring education." (**United Nations, 2016**)

According to the Comment, inclusive education needs to be:

1. **Available:** There should be educational places available for people with disabilities.

2. **Accessible:** "The entire education system must be accessible, including buildings, information and communications tools, the curriculum, educational materials, teaching methods, assessments and language and support services" (**United Nations, 2016, p. 7**). Access to the learning environment needs to take into account the principles of Universal Design, including the provision of assistive technology and reasonable accommodation. Importantly, the need for accessible learning and teaching materials is highlighted with an emphasis on braille and digital formats, as well as sign language. In considering accessibility, care should be taken that any reasonable accommodation does not result in additional costs for the person with disabilities or their families.

3. **Acceptable:** Inclusive education needs to take into account the perspectives and needs of people with disabilities

4. **Adaptable:** Countries are encouraged to adopt the UDL approach to create flexible learning environments for students at all levels. In this respect, it echoes the Global Education Monitoring (GEM) report (described in more detail below) and places UDL at the heart of an engaging learning environment that provides multiple, flexible pathways to learning success. There is an important distinction made between the general accessibility that is made possible through UDL for all learners and the need for reasonable accommodations for individuals with disabilities. The pyramid diagram in Figure 1 illustrates this point.

GLOSSARY: Universal Design

"Universal Design" is the design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people, regardless of their age, size, ability or disability. An environment (or any building, product, or service in that environment) should be designed to meet the needs of all people who wish to use it. This is not a special requirement for the benefit of a minority of the population. It is a fundamental condition of good design. If an environment is accessible, usable, convenient and a pleasure to use, everyone benefits. By considering the diverse needs and abilities of all throughout the design process, Universal Design creates products, services and environments that meet people's needs. Simply put, Universal Design is good design. You can read more about Universal Design **here**.

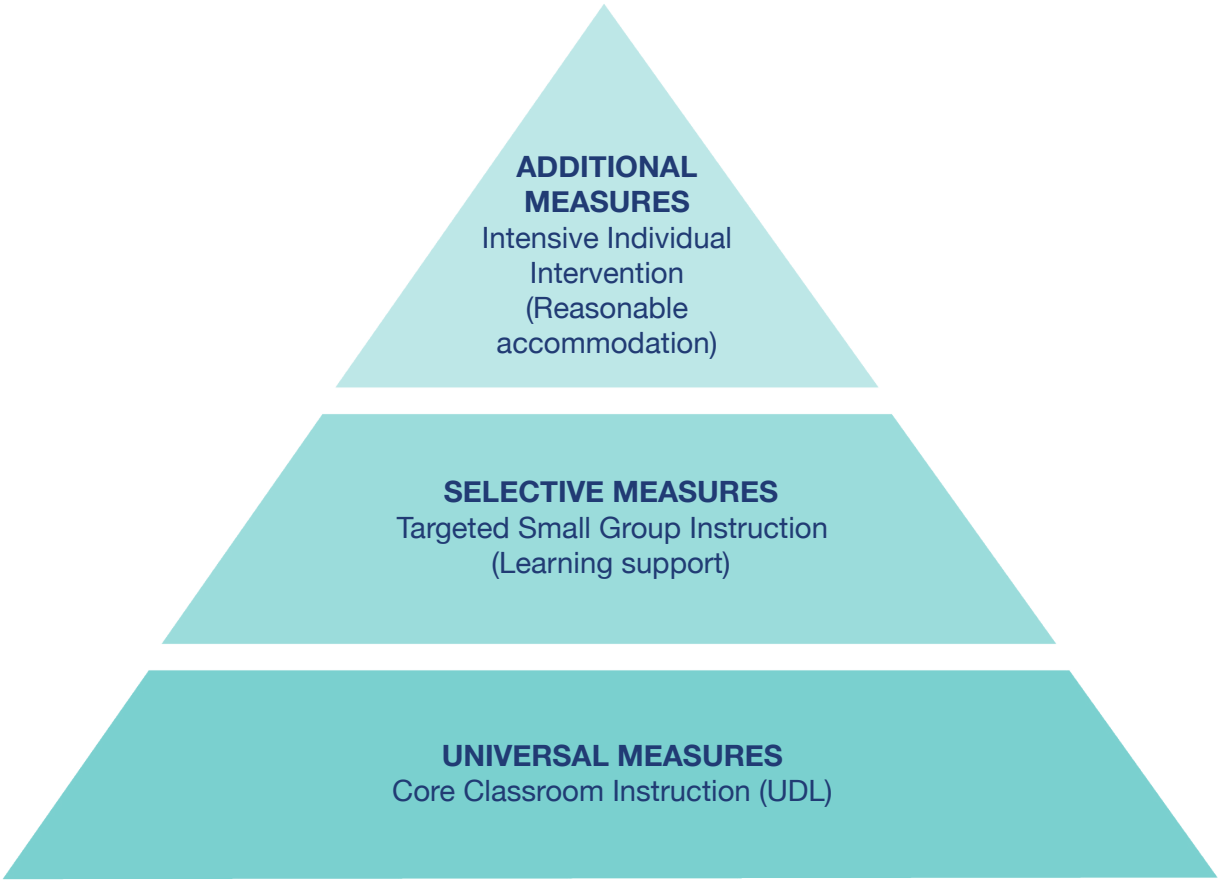

Figure 1: Pyramid of support measures in inclusive education

Global Education Monitoring Report – Inclusion and Education: All means all (2020)

The **Global Education Monitoring Report** (GEM) is issued on a regular basis by UNESCO to monitor the implementation of SDG 4. Every year, the monitoring committee adopts a different theme for the report related to SDG 4 targets. In 2020, the theme was inclusion and education, with the sub-theme "All means all", emphasising the commitment to the "leave no-one behind" principle. The UNESCO monitoring committee recognised that there are many challenges that exist, but that the commitment to full inclusion can no longer be debated – in much the same way that one would not debate the benefits of abolition of slavery, or indeed, of apartheid. This report emphasises that inclusion is a human right and a moral imperative. However, there is also an acknowledgement that inclusion in education is a process and not only a desired end point. Thus, while we can accept that inclusion is a human right, it remains a process or a journey that leads toward the ultimate goals of education for all.

In line with SDG 4, inclusive education is not only concerned with learners with disabilities, but also those who are excluded through discriminatory mechanisms on the grounds of race, gender, sexual orientation, cultural biases, health status and other identities. Furthermore, it extends education beyond academic achievement, taking into account areas that contribute to quality education, such as social and emotional development, self-esteem and peer acceptance. Thus, there is a move away from that idea of inclusion about just being there and being seen in the classroom, towards achieving academically as well as being included and supported socially. Education is about much more than access – it is also about participation and success. In order to achieve this, the GEM report advocates for schools that are well resourced and well supported to adapt curricula with suitably trained teachers, as well as adequate and relevant teaching and learning materials. Similarly, to the Article 24 General Comment, the GEM report promotes UDL as an effective way to put inclusion into action in classrooms.

The global policy frameworks discussed above set ambitious goals for the education of people with disabilities. When reading them, you might think that these ideas are very inspiring, but how does one actually make them a reality? We are now going to discuss a particular policy in a particular context to see how policy-makers and education departments have made efforts to enact some of these policy goals.

South African Department of Basic Education Policy on Screening, Identification, Assessment and Support

In this section, we will deal with understanding the **Screening, Identification, Assessment and Support** process in South Africa, which you will often hear referred to by its acronym: SIAS. The process is a multidisciplinary one, because although teachers start the process, it involves a range of role-players in different stages, which we will discuss further below. First, we want to look at how the policy intends to support the kind of transformation we discussed in **Chapter 3** and in the global policies that were covered in the first part of this chapter.

READ: Policy on screening, identification, assessment and support

Author: Department of Basic Education
Year: 2014
Estimated reading time: 30 minutes
File size: 2 MB

Focus on chapters 1–4, which introduce the policy, articulate the rationale and principles of the policy, and level and nature of support required.

READ: Care and support for teaching and learning

Author: MIET Africa
Year: 2015
Estimated reading time: 30 minutes
File size: 4.1 MB

The most important part of this document is on pages 16–27. Take note of the ecological systems approach because this is very important for understanding learner support from a DSE perspective.

SIAS was designed by the DBE in a consultative process as a means to realise the goals set out in the South African Departments of Education's (2001) **Education White Paper 6** (EWP6) and it adopts a social model of disability, in moving from impairment category towards identifying support needs at low, moderate or high levels. One of the intentions of this is to be more deliberate and considered about referrals to special schools which were previously made solely on the basis of the presence or absence of a disability and without consideration of learners' needs or their learning context.

As a result, many learners were placed in special schools without needing the levels of support that were offered there, while also losing out on the benefits of a more inclusive learning environment. At the same time, there were children in mainstream schools who needed support, but were not getting it as support was located in the special school. Referral processes between the mainstream and special schools and learning support services were somewhat haphazard and ad hoc. SIAS was developed to standardise the process and improve access to quality education, manage and support teaching and learning processes, and work toward the aim of EWP6 to establish a seamless system of early identification for children who need extra support.

While the global policies that we have discussed above do not provide guidance for special schools, inclusive education policy in South Africa retains special schools, intending to repurpose them to provide high levels of support as well as acting as a resource to mainstream schools that are becoming more inclusive of disability but need support in the process. The SIAS process is critical to this effort and, practically speaking, is widely used in determining placement and referral options for children with disabilities. Ideally, the child with high support needs should only be in special school for as long as they need that level of support. This implies some level of fluidity and maybe being able to move from a special school to a full-service school which is resourced with additional support or even an ordinary school that has access to additional support. SIAS aims to identify the barriers to learning and the support programme that needs to be in place to reduce the impact of the barrier.

Furthermore, the data collected through SIAS directs the system on how to plan budget and programme support at all levels. It is envisaged by the DBE as a key procedure to ensure the transformation of the education system towards an inclusive education system in line with EWP6 and the UNCRPD. Thus, it is not just about including children with disabilities, but about transforming the whole education system so that each child will be valued equally and every child will matter.

These are the principles of the policy:

1. Acknowledging that children have a right to a basic, quality education in their own communities.
2. Ensuring that support or reasonable accommodation will be available to more learners in mainstream settings, reducing the need for referring them for alternative placement.
3. Involving parents and teachers in decision-making about the support to be provided and viewing a child within their own context.
4. Ensuring that admission to special schools will be restricted to learners who have high-level support needs that cannot be met in other settings.
5. Aligning screening and assessment processes to those in health and social development.

SIAS aims to identify support needs for full access to the curriculum along a continuum of intensity, ranging from low to moderate to high. Not all learners who are diagnosed with a disability have the same level of support needs just because they have the same medical diagnosis. In addition, support needs do not have to be site-restricted – ideally the support can follow the learner in whichever school best suits their needs, taking the support to the learner rather than the learner to the support.

Five specific support provision areas are identified:

1. Specialist support staff.
2. Assistive devices, specialised equipment and teaching and learning support materials.
3. Curriculum differentiation to meet the individual needs of learners.
4. Initial and ongoing training, orientation, mentorship and guidance.
5. Environmental access (once-off and not necessarily ongoing).

Low-rated support is mostly preventative and proactive and covers generally applicable departmental programmes and policies. Moderate-rated support concerns provisions in addition to the general provision of education and can usually be accommodated in an ordinary school. High-level support provision requires specialised intervention and facilities; although usually located within special schools, these accommodations could also be provided in mainstream schools.

Stages of SIAS

The SIAS process has different stages, each of which is recorded in a purpose-developed template which serves to record, collate and monitor children's progress.

Stage 1: Initial screening

The teacher must screen all children at admission as well as in the beginning of each phase and record their findings in the Learner Profile (LP), which is included in the policy as an annexure.

Stage 2: Identifying and addressing barriers at a school level

When a learner has been identified through the initial screening as being vulnerable or at risk (as pointed out in their LP), the teacher needs to initiate a process to drive the necessary support for the child. The teacher completes the Support Needs Assessment 1 (SNA1) form in consultation with the caregiver and finds out if there has been intervention to address the issue. The strengths and needs of the child are identified and an individual support plan is drawn up to address the identified areas of support.

Should the teacher reach the stage where everything possible has been done in the class and there is insufficient progress, the teacher can refer to the school-based support team (SBST) for a case discussion through completing the SNA2 form, which outlines the barriers identified and the interventions that have been attempted. The SBST then develops a plan of action to strengthen support, drawing on resources already available to the school and their network of

service providers. If there are clear concerns, the SBST might want to refer for extra learning support, or perhaps even engage with the national Department of Health.

Stage 3: Identifying and addressing barriers at the district level

If the interventions implemented at Stage 2 do not result in the desired improvement, the school can refer to the circuit or district-based support team (C/DBST). The C/DBST puts a further plan of action together for the learner and or school based on the information available.

The plan will spell out a suitable support approach and include:

1. Planning and budgeting for additional support programmes determined in SNA3.
2. Resource and support-service allocation to school and learner.
3. Training, counselling and mentoring of teachers and parents/legal caregivers.
4. Monitoring support provision.

AUTHOR REFLECTION

Sometimes the district-based support team alerts us to a general issue, for example, that there are many children at grade four level who are not learning to read, or not reading at the level expected in grade four. That is not just an individual learner problem. That is probably a system problem. So, my response could be to raise such issues at provincial meetings or when I go to national meetings. So perhaps there are too many tasks in grade four. Or perhaps we all are rushing through the curriculum which is set and we're not making sure that the learners are mastering the basics of literacy and numeracy in the foundation phase. So, a higher level intervention or system intervention may need to take place.

Sometimes you also find that at the classroom level, we have a few learners that are referred for a similar problem. So, you're not going to do an individual support plan for each and every one of them. We think that it's useful to group learners who have similar problems. We speak about group support plans. When we do this properly, what we expect is that 80% of the learners can manage with the right support in their classrooms and perhaps 15% of the learners need some additional support. And they can usually be helped by the Learning Support teacher or be given advice from the circuit/district support teams or the special school outreach teams. And then it's really only 5% who need high level support. (Berenice Daniels, 2022)

Conclusion

In this chapter, we looked at how inclusive education is supported by global policies and declarations. We have also taken this a step further in asking what this looks like when it comes to enacting these policies in a specific country context. We have used the example of the SIAS strategy as the South African response to providing support for all learners across the system. This gives an idea of how support might actually work, but it is not necessarily the only or the best strategy. If you work in South Africa, you might want to think about it critically to see where the policy is strong and where there might be difficulties. If you are from another country, you might want to see what is being done to support inclusion in policy implementation.

ACTIVITY

Estimated time: 15 minutes

Based on the story that you have written and your analysis of how this relates to global policy, fill in as much as you are able to on the SIAS SNA 1 form. Also write a short critical reflection on the ways that you think SIAS enables inclusive education and how it could be further developed for this purpose.

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section C

Disability Studies in Inclusive Education

Connecting schools, families and communities, and decoloniality in Disability Studies in Education

chapter 7

Disability Studies in Inclusive Education

Overview: Connecting schools, families and communities, and decoloniality in Disability Studies in Education

Amani Karisa

Section learning outcomes

After completing this section, you will be able to:

- Explore experiences of childhood disability in families.
- Describe an ecosystemic model of inclusive education.
- Explore inclusion and exclusion as connected processes in a mainstream school on its journey to becoming an inclusive school.
- Identify the role of the children, teachers, parents, school leadership and the broader community in the process of creating an inclusive school.
- Understand how education in Africa reflects colonial practices.
- Understand decoloniality in Disability Studies in Education.
- Understand the importance of collaborating with parents in the schooling of children with impairments.

Introduction

In this section, we focus on how to enhance collaboration between schools, families and communities in order to improve the education of children with disabilities. Schools are part of our communities and our communities are made up of various families. It means that these different spheres are interconnected and they need to be synergistic in order to benefit from their interconnection. We will explore the links between schools, families and communities, illuminating how impairment and poverty are related, policy supporting inclusive education, and the roles of different education stakeholders in addressing the challenges faced not only by children with disabilities, but also their families.

We also present a decolonial perspective to our thinking about the education of children with disabilities. This is in acknowledgment of the fact that contemporary formal education in Africa, including that of children with disabilities, has Western roots and influences. We highlight the need to critically examine current philosophies, policies and practices of education so that we do not replicate the marginalisation that has taken place in Africa due to colonialism. A decolonial stance to the education of children with disabilities would advance an education system that addresses our contextual realities rather than only pursuing a Western academic ideal. We end with a further discussion on the importance of collaborating with parents in the schooling of children with disabilities.

Let us begin with a glimpse of the views of a parent regarding the education of his child with an impairment.

GLOSSARY: Impairment

The terms "impairment" and "disability" differ from each other. Impairment refers to the medical condition a person has that results in a loss, limitation or difference of bodily functioning. Impairment forms part of the definition of disability. Disability refers to the experience of limitation and loss of opportunities to take part in society and the environment because of the social and environmental barriers a person with an impairment experiences. This leads to the person experiencing disability. It is important to note that a person's impairment is not the cause of nor does it justify the experience of disability.

Insider view: Perspectives on education

In the transcript below extracted from Karisa (2020), Zoezi (not his real name), a father, shares his views regarding the schooling of his child with an intellectual impairment. Zoezi was one of the fathers interviewed in the Karisa study conducted in Kenya to understand the involvement of parents in the education of their children with disabilities. His views are a good entry point for our discussion on the impact of community values on education.

My most important thing is to ask teachers to try hard to make everyone meet his or her goals. If that happens, even us the parents we will see, "Our child has gone to a certain place, but as at now, he is doing a certain work." It will be a relief to us; not that the child is here and he leaves without any hope in life and becomes a burden again to the parents. It won't be good. But take the example, he leaves the school and I am called by the teacher to be told, "These are his certificates. And we have sent him in this job, and if he takes this job well, it will support his life …"

But in this school, it's as if we are paying the money just for the children to eat, because they eat here. So it's just eating and sleeping. When you think of it, the way the school acts, it's like in this school, they have made it a way of relieving the burden from the parent. It's better for the child to come and make noise here than to make noise for the parent at home. With some reason maybe, because the teacher is being paid. "Now that you are paid, you'll have to take the responsibility. Let the child make noise but at the end of the month, you get a salary."

The parent is paying but he/she doesn't see the benefits for the child. It's like, "He's in school. Alright. Let him disturb there but in the evening I will just be a little disturbed. After some time, the child will sleep and tomorrow he will go back to school and I'll go to work or to look for a job. I will be able to relax; I will not have many problems – many of the problems will be with the teachers." So the teachers … I'm just saying, not that all the teachers are like that ... the teachers consider the responsibility of teaching the disabled children as a way of getting what they [teachers] want.

This extract touches on several aspects that will be explored in depth in this section. These include the influences on contemporary education systems in Africa, the roles of parents and teachers in the education of children with disabilities, as well as the need to reimagine education systems in order to address the contextual needs of families of children with disabilities. Making reference to the extract, please engage with the reflection activity below as an introduction to this section.

REFLECTION

Estimated time: 10–15 minutes

Reflect on how the interests of this father towards the education of his child with an intellectual impairment relate to those of the school in this context. Whose interests does the school serve and why? Write down your reflections and discuss them with someone else.

chapter 8

Disability Studies in Inclusive Education

Connecting schools, families and communities, and developing an inclusive school

Brian Watermeyer & Rose-Anne Reynolds

Chapter learning outcomes

After completing this chapter, you will be able to:

- Explore experiences of childhood disability in families.
- Describe an ecosystemic model of inclusive education.
- Explore inclusion and exclusion as connected processes of a mainstream school on its journey to becoming an inclusive school.
- Identify the role of the children, teachers, parents, school leadership and the broader community in the process of creating an inclusive school.

Preparatory activities

WATCH: Everyone a changemaker: The story of Pinelands North

Creator: Ashoka
Date: 2015
Duration: 7 minutes

Watch the seven-minute video. Don't rush. Watch it more than once and look at different aspects of the video the second time around. Reflect on the roles of the children, teachers, parents and school leadership, and how each of these role-players contribute to processes of inclusion (and exclusion). Consider the kinds of decisions the school principal had to make to ensure that a child with a disability could join the school as a pupil – and subsequently many more children with disabilities and varied needs. What is the ethos of the school? What is valued? What do you notice about the relationships between the children and the staff? How are animals included in the life of the school? How is learning support best extended to include the needs of the children at the school? Record your responses.

WATCH: Disability, poverty and the family

Creator: Brian Watermeyer
Date: 2021
Duration: 20 minutes

READ: Guidelines for responding to learning diversity in the classroom through CAPS

Author: Department of Basic Education
Year: 2011
Estimated reading time: 1 hour
File size: 1.53 MB

CASE STUDY: Disability, structural disadvantage and the family

Jenna-Lee (JL) is 17 and lives with her mother (Mo) and siblings, Ursula (21) and Theo (16), in Atlantis, a low-income community an hour from Cape Town. JL has a severe physical and speech impairment, resulting from cerebral palsy following an acute neurological illness as an infant. JL was hospitalised for six months, undergoing several brain surgeries. This time was unbearable for the family, who received very little support.

JL's father, Fa's (56) unemployment led to divorcing Mo (52) and estrangement from his children. Mo believes Fa's inability to cope with JL's disability caused the divorce. JL worries that this is true. Mo supports her children by working part-time at an NGO that supports families of children with disabilities.

For years after the divorce, Mo and the children struggled with housing, first living with family and then in small rented spaces, sometimes moving to escape negative attitudes towards JL expressed by neighbours and co-habitants. During this time, Ursula feared for JL's safety "as a girl".

JL's care dependency grant stopped unexpectedly, leaving Mo struggling to feed the family. Mo repeatedly visited the offices of the South African Social Security Agency (SASSA), which administers the Social Relief of Distress Grant, only to have the issue dismissed by SASSA agents.

JL receives physiotherapy fortnightly at Groote Schuur Hospital in Cape Town. To attend, Mo takes a day's leave, spending most of the weekly budget on taxi fare. State services will not provide the specialised wheelchair JL needs which costs R30 000 and the family has no medical aid.

JL spent two years at a school for children with physical impairments but was asked to leave as the school considered her incapable of learning. After waiting two years, JL flourished at a school for children with cerebral palsy, until she could no longer physically access the school bus. Taxi transport with a wheelchair was traumatic and unsustainable. After another wait, JL enrolled at a school for children with learning disabilities, where she is bullied. Mo worries that no teaching occurs.

Ursula is overwhelmed and frustrated by the full-time responsibility of caring for JL. Theo ran away from home, works for a drug dealer and is severely depressed. The continuous challenges depress Mo.

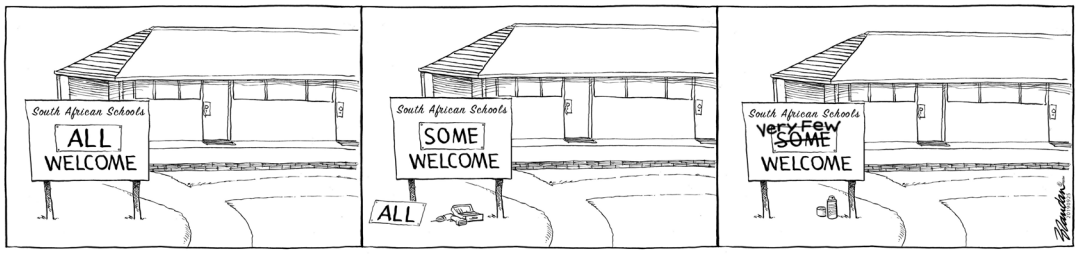
Respond to the following four questions and share your responses with one of your peers:

1. List as many of the difficulties facing this family as you can, briefly describing each.
2. Think about the possible knock-on effects of these difficulties, including how some issues exacerbate others.
3. What supports would be of value to this family – in the past, currently and into the future? Think of referral options to address these needs.
4. What role could the schooling system play in supporting and empowering families in circumstances such as these? How might you, as a teacher, offer help to this family?

ACTIVITY

Estimated time: 20 minutes

Using the cartoon below to inform your choices, comment on which categories of exclusion make very few schools accessible to children in South Africa, especially children with disabilities. The COVID-19 pandemic has made schooling very different around the world and in South Africa; think about how the pandemic and COVID-19 protocols that were introduced and enforced in schools have contributed to categories of exclusion.



(Cartoon by Brandan Reynolds, used with permission)

Introduction

In this chapter, we focus on the question of how to develop schools into places of real inclusion through promoting support and cooperation among important role-players in the education of a child with a disability. Parents and families are crucially important and must be carefully thought about here, as they cope with the demands of caring for their child along with a range of other possible stressors, such as poverty. Creating trusting and sustained alliances between families, teachers, school leadership and others involved in supporting education, such as therapists, is our goal. The lived experience of a schoolchild does, however, have many layers, all of which may be a support or a barrier to full participation.

We will begin by considering the experiences of families of children with disabilities, focusing on their many challenges and finding ways to support them as key partners in promoting inclusion.

After that, we will move on to a method for systematically thinking about the environment of the child, from home to school to community and beyond, which can help us as we track aspects that either promote inclusion or present barriers. In approaching the challenge of moving schools from a traditional "mainstream" model of functioning to becoming inclusive, the point of departure must be full acceptance of the principle that all children can learn, given the supportive and attuned environment they need. Our schools can become welcoming environments which truly value diversity, and which are responsive to the needs and learning styles of learners, rather than the other way around. We will explore strategies for achieving this. So, let us begin by thinking about the challenges faced by families of children with disabilities, as we work to create partnerships around the common goal of promoting inclusive education.

Disability, poverty and the family

Caring for a child with a disability is both physically and emotionally demanding for parents and other family members, and this difficulty is compounded in many ways by poverty. While these challenges are always considerable, in socio-economically deprived families they may be but one among a host of problems. Here, basic survival may be in question, and must be prioritised. As we shall see, impairment-related challenges can also interact with other problems of living arising from poverty, making the lives of families more precarious.

Many scholars in Disability Studies have identified the mutually reinforcing relationship between disability and poverty – sometimes referred to as a "vicious cycle". This is because disability can cause or worsen situations of poverty, while living in poverty also renders people more vulnerable to becoming disabled. Let us explore some of the mechanisms at work here.

Families with a disabled child have been found to be more likely to be poor and less likely to manage to escape from lives of poverty by accumulating resources. Providing for the needs of a disabled child can involve a range of extra expenses, depleting the household budget. For example, added transport costs may arise due to the child attending a special school which may be in another neighbourhood, or as a result of the need to attend rehabilitation sessions or medical appointments. Further, the child may require costly resources, such as chronic medication, special foods or assistive devices. An important and often neglected issue is the fact that a child with high support needs may require constant care, which means that an adult carer must always be present in the home. This reduces the earning potential of the household, as the carer cannot be gainfully employed.

As we have seen, while disability can contribute to poverty, poverty also increases the prevalence of disability. Impairment in childhood is more likely in poor communities because of the increased risk of a low quality of health care, including obstetric and post-natal care.

This may lead to a higher risk of birth complications that can cause impairment, as well as the failure to diagnose and treat diseases of early childhood. Further, communities living in poverty are exposed to poorer living conditions, such as unreliable access to clean water, and a lack of safe places for children to play, which can lead to diseases or accidents that may cause impairment. Lastly, violence, criminality and abuse are likely to be more prevalent in such communities, relating to high levels of unemployment, poor security and substance abuse, presenting risks for disabling injuries.

Many parents of children with disabilities have endured years of stress due to a range of factors. These include economic stress, which can interact with the physical and emotional demands of caring for a child with a disability. In addition, living in a society full of disability-related exclusion means that parents must fight for access for their children to essential services such as health care, and especially education. Such struggles may drag on for years, as a child is turned away from one school after another – this is what is often going on behind the crisis in education for children with disabilities in South Africa which we read about in **Chapter 2**. The South African situation is not at all uncommon, especially in countries of the Global South. Parents may also experience prejudice from their communities on the basis of disability, worsening feelings of isolation. All of these factors can present risks to the mental health of parents and other family members, who need both professional and community support.

Creating partnerships between schools and families

As key role-players in promoting the inclusion of learners with disabilities in education, it is essential that secure, trusting and cooperative relationships be maintained between teachers, other school-based workers and parents. Parents are central in shaping the life-worlds of children with disabilities and must be viewed by educationists as a crucial resource.

The family centred services (FCS) model emphasises partnerships between parents and all service providers, such as teachers, doctors and community workers, creating a situation in which families are involved in all aspects of service provision for their child (**Rosenbaum et al., 1998**). In order to develop truly collaborative relationships with parents, it is essential that educationists cultivate the skill of listening, creating a compassionate space in which parents' experiences of struggle may be heard and validated. Parents and other family members are the people who know the disabled child best – their strengths, needs, preferences and personality – and this knowledge should have a central role in creating an attuned, supportive environment for the child at school.

Conversely, parents may also learn techniques from teachers, such as how to support learning at home through creating and using accessible learning materials. Providing services using the FCS model has been shown to improve outcomes for children, as well as leading to greater levels of satisfaction with services among parents. Importantly, the approach is also associated with lower levels of stress in parents, as collaborative relationships provide support rather than the conflict which so many parents of disabled children often experience in their engagements with institutions such as schools and hospitals.

If we are to be successful in promoting the inclusion of children with disabilities in the school as well as the community, it is essential that we fully understand all aspects of the environments they occupy. In order to help us think systematically about the life-world of the developing child, the psychologist Urie Bronfenbrenner has developed the eco-systemic model, which we will now explore.

Bronfenbrenner's eco-systemic model

To help us understand the context of child development, Bronfenbrenner's model divides the environment into five subsystems. These are called the microsystem, the mesosystem, the exosystem, the macrosystem and the chronosystem. Below is an explanation of each one, paying particular attention to issues in education which may arise at the various levels.

The microsystem

The microsystem refers to a child's immediate context, involving direct relationships with family members and close friends who the child interacts with on a daily basis. In thinking about creating an optimal supportive and inclusive environment for education, we might explore the ways in which the home environment may or may not support learning. For example, there may be barriers to learning caused by familial conflict or extreme stress, or parents may be unequipped to support the learning of their child due to other factors. In purely physical terms, the home may be a difficult place to learn. Inadequate space for all members of the household may mean that there is constant noise, while a lack of electricity could mean that after-dark lighting in which to read or do homework is insufficient.

The mesosystem

The mesosystem refers to the interrelation between two or more settings in which the child actively participates. For example, it encompasses relations between such settings as the home, the school, the neighbourhood community, and the child's peer group. It is understood that these microsystems are continually interacting with one another in ways which may be supportive to education or present barriers. At this level, we may be interested in whether parents and other household members are interacting with the teacher and the school in a mutually supportive, collaborative manner.

The exosystem

The exosystem of the developmental environment includes one or more settings that do not involve the child as an active participant, but in which events take place which have an effect on the child. An example of such settings is a school's governing body, where policies affecting the child, such as those concerning disability inclusion, may be formulated. Here, we may also investigate whether key stakeholders in inclusion, such as school-based staff, mobile educational support teams and school governing bodies, are cooperating effectively and whether each has the necessary capacity to promote inclusion.

The macrosystem

The macrosystem level of analysis refers to the broader cultural world which surrounds the developing child. Relevant here are the positions on disability and inclusion reflected in government policies, cultural customs and beliefs, influential historical events, dominant political ideologies, and the prevailing economic system in a society. Here, we may ask whether appropriate provisions for inclusive education are made in a country's constitution and legislation, and whether such provisions are both broadly understood and effectively implemented.

The chronosystem

The chronosystem adds the dimension of time, drawing our attention to ongoing shifts that occur in all of the other systems. For example, we might want to gather knowledge on how, over time, educators and schools have undergone processes to make them more prepared for disability inclusion. It takes time to create more accessible school environments, to capacitate teachers, promote availability of assistive technologies, and to perform public advocacy for inclusive education. Progress in such areas must be continually monitored over time.

Bronfenbrenner's framework brings several advantages to the analysis of a child's environment, including with respect to the creation of inclusive education. We are able to explore inclusive education at the level of systems and their interaction, as well as the individuals within those systems. An emphasis on the interconnectedness of systems means that each aspect of the environment, such as the home, the school and the peer group, is not examined in isolation, but as part of a complex interaction. Within each system, inclusive education may be either supported or undermined by various components, inviting an examination of the ways in which practices are shaped by an interaction of individuals with their environments.

Developing an inclusive school

Inclusion is about extending meaningful inclusive practices and structures that would enable all learners to access education. Inclusion is a philosophy which reimagines child, teacher, knowledge and schooling. All children can learn. One of the first documents which helps provide an anchor for how to think about inclusion and inclusive education, the UNESCO *Salamanca Statement and Framework for Action on Special Needs Education* (**1994**) was adopted by the World Conference on Special Needs Education: Access and Quality in Salamanca, Spain, in June 1994. It is still used widely and is the basis for the South African Department of Education's EWP6 (**2001**). The Salamanca Statement helps us to think about why schools should be inclusive. Inclusion is difficult and inclusive education is complicated, but that does not mean we should not try. The Statement reads:

> *The guiding principle that informs this framework is that schools should accommodate all children regardless of their physical, intellectual, social, emotional, linguistics or other conditions. This should include disabled and gifted children, street and working children, children from remote or nomadic populations, children from linguistic, ethnic or cultural minorities and children from other disadvantaged or marginalized areas or groups. These conditions create a range of different challenges to school systems.* (**UNESCO, 1994, p. 5**)

Education White Paper 6

EWP6 was published by the South African Department of Education in 2001 and offers a way to think about systematically moving away from using segregation as a way of categorising disabilities and as an organising principle for institutions. During apartheid, we discriminated against children based on race and perceived ability. During apartheid, children who needed special-needs schools were also discriminated against in terms of race and disability. The fact that South Africa is one of the most unequal countries in the world has a massive effect on our schooling system and some schools continue to be far "worse" resourced than other schools post-apartheid. EWP6 offers some of the history of inclusive education in South Africa and outlines how education and training systems can transform and contribute to establishing a caring and humane society. In order to do so, our education system needed to change post-1994 to accommodate the full range of learning needs of all children in the schooling system, especially those who are disabled and need varying levels of support.

The Salamanca Statement helps us to think about a wide range of children and the different difficulties they could be facing. For example, what about migrant children who are disabled or children who do not have any status politically, who may be disabled? This framework provides some ways of thinking about how to support these children in schools and with their learning. We are not suggesting that the best place for every child is a school because there are many other places where children can learn and be supported, but our focus in this chapter is on how we can think about making our schools more inclusive. It is also important to remember that we need to trouble the notion of inclusive education in schools, as inclusivity does not only need to be addressed in schools, but should instead include different types of educational settings.

Inclusive education

When we think about inclusion in schools there are a couple of things that inclusion is not.

Inclusion is not **assimilation**. It is not about asking a child with a specific need to ignore that need and be made to feel they need to be just the same as everyone else and do whatever everyone else at school is doing. Inclusion is also not only about **accommodation**. For example, if a child is in a wheelchair, it is important to think carefully and creatively about how to include the child in the wheelchair. It is about making the changes necessary so that the person in the wheelchair is included in the activities and functioning of the whole school. It involves re-thinking how particular activities can take place so that the child in the wheelchair is valued for every part of themselves and the wheelchair is not seen as an inconvenience, but as part of the child's life and way of being in the world.

Inclusion is also not just about **tolerance**. Often, there is pressure to minimise our differences from each other simply to conform to social conventions and dominant norms. This is problematic and these norms need to be contested. For example, that all children learn to read or write in the same way. It is very important to remember that there is no recipe for inclusion and inclusive education. It is about taking the time to get to know specific children and what their needs are. It is possible to do this for all children if we make inclusion a priority. Inclusion and exclusion are related concepts because we include until we exclude and this happens in small and big ways – in families, schools and more broadly in society.

Figure 1 visually illustrates the difference between separation, integration, assimilation and inclusion.

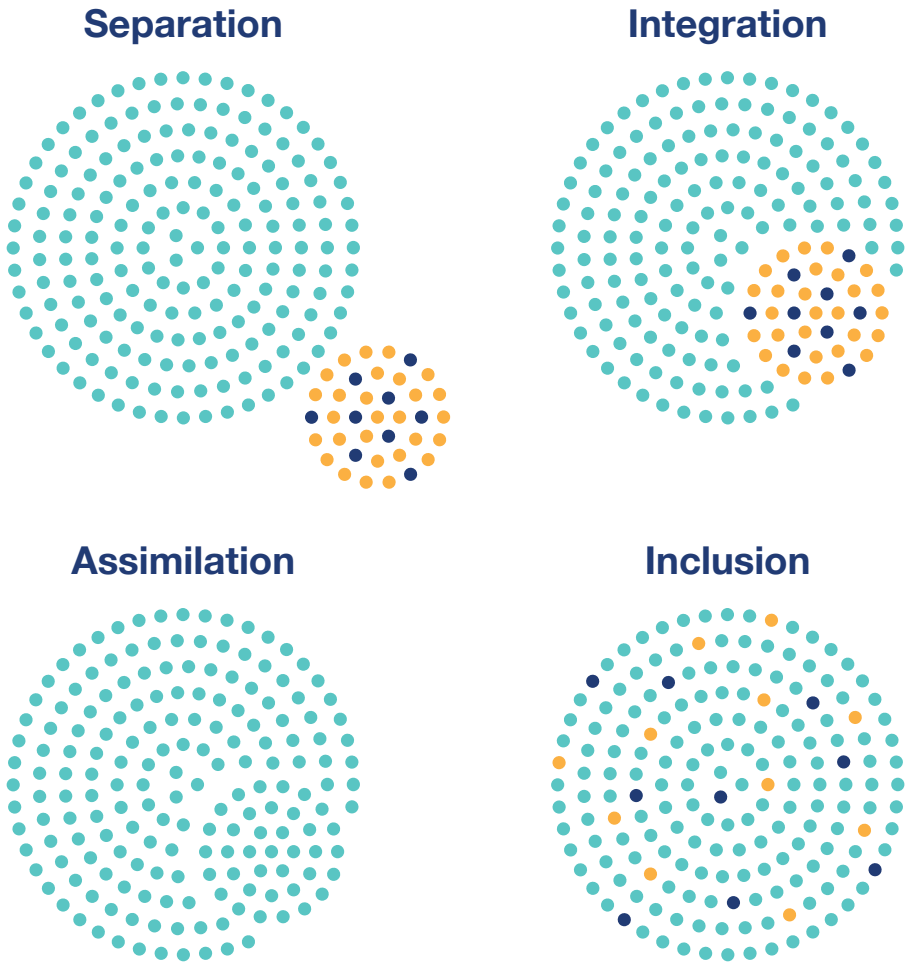


Figure 1: Illustration of the difference between separation, integration, assimilation and inclusion

In the circle in the top left-hand corner is **separation**. While this is obvious it is still problematic as it is the preferred and sometimes standard response to why schools are not embracing the philosophy of inclusion or being inclusive. The idea that it remains okay for us to be separated in this world is exclusion in its most basic form. In the circle to the right labelled **integration**, there is very little influence on those integrating within the dominant group. This is not really integration, it can be identified as simply being invited in to participate, to show quite superficially that a door has been opened.

The circle in the bottom left quadrant labelled **assimilation** is a very clear illustration that those who have been included are now assimilating to the dominant values and ways of the community. Features that differentiate them (such as a unique hairstyle) are hidden or changed so that they become like everyone else in the community. The value of difference is diminished and similarity and sameness is valued. As if this is even possible.

Again, this is a very superficial and inauthentic community. In the circle on the bottom right quadrant, labelled inclusion, the colourful dots have maintained their colour and are spread throughout the community. This is not to suggest inclusion is without difficulty – but it does show what is possible!

Please note that this is simply an illustration and it is important to remember that the light blue dots in each circle are not homogenous either. Simply being at a school does not necessarily mean that a child is included.

We now look at the role of teachers and parents in making inclusion a reality.

The role of teachers in inclusive education

The Department of Basic Education's *Guidelines for responding to learner diversity in the classroom through CAPS* (**2011**) is a useful resource which focuses on understanding diversity in the classroom and responding to diversity in very practical ways. Curriculum is sometimes seen as the biggest barrier to inclusion, so this document specifically addresses aspects of curriculum differentiation, which is particularly helpful for teachers. If a teacher wants to know how to differentiate a standardised national curriculum for children in their classroom, this is a good place to start. It also provides some ideas for differentiating the learning environment. These are some specific strategies for teachers from the *Guidelines*:

- Recognise any biases or stereotypes we as teachers may have.
- Treat each learner as an individual and respect each learner for who they are (knowing that this changes from day to day).
- Avoid using language that is biased and undermines certain groups of learners.
- Refrain from making remarks that make assumptions about learners' experiences.
- Consider the unique needs of learners when designing learning programmes and lessons.
- Utilise constant re-evaluating methods for teaching and assessing learners in a diverse setting.
- Consider different approaches, methodologies and strategies when teaching.
- Create opportunities for all learners to participate in activities.

All these strategies contribute towards making the curriculum, classroom and school more supportive of the specific and diverse needs of children in the classroom. The child does not need to be changed, but the way they access their learning needs to be adapted to suit their specific needs. Differentiation is a way to think about how children are learning and meeting their specific needs.

Teachers can try to identify the specific needs of the children in their class. It is not possible to know or understand every disability, but to better understand the needs of the children in the class is important. Connecting with colleagues like doctors, occupational therapists, speech therapists, physiotherapists and learning support specialists who are willing to share ideas and particular strategies about how to make each classroom more inclusive is important. Teachers also need to include themselves in their classroom so that they can be supportive of the various needs presented in the class, including their own! If a teacher is able to identify their needs, strengths and challenges, this will lead to empathy and a different way of viewing the diverse needs of the children in their classroom.

The role of parents in inclusive education

The question this section deals with is how parents can be supported by schools and specifically how teachers can support families. Parents need empathy and understanding about how their child will be included in the classroom and school. It is necessary to create a comfortable space in the classroom and at the school for the child where they can feel at ease; parents can assist with this by bringing particular insights about their child. There need to be regular meetings between parents and all staff who interact with the child, especially as needs and curriculum change. Parents must be included in all decisions which will affect the child. These decisions often affect the family and the resources they have available outside the school.

Teachers also need to manage the necessarily high expectations and deep concerns of the parents as well as their hopes and desires for their child. At different times there will be a need to prioritise different areas of support that need to be accessed. The teachers and learning support team need to facilitate the Screening, Identification, Assessment and Support (SIAS) process (see **Chapter 6**) and the referral to the District Based Support Team (DBST). Parents need to be included in the development of the Individual Support Plan (ISP) and guided through the implementation of the required areas of support. Parents can also be supported through the development of a parent support group, which could be in person or through a virtual platform such as Zoom or WhatsApp.

Conclusion

The process of creating education which is inclusive requires the support and cooperation of everyone involved in the life-world of the child. It is impossible to overemphasise the importance of the deliberate effort which teachers must make to build relationships and open communication with parents, as well as with one another, for mutual support and guidance.

Trusting relationships are created through good listening and the development of empathy – when parents feel that there is time and care available for their experiences to be heard and understood, they become more able to trust teachers as allies and recognise the importance of their own role in their child's education. As should be clear by now, inclusion is not an "end point" which can be reached and celebrated on a particular day, after which the work will be over. Inclusion is an ongoing process based on communication and observation, which leads to ever-growing awareness of barriers and the creative process of implementing solutions. There is always more to do, as we learn more about our differences and how to create environments which are caring and welcoming to all.

References

Department of Basic Education. (2011). *Guidelines for responding to learner diversity in the classroom through CAPS.* Government Printer. **https://wcedeportal.co.za/eresource/214261**

Department of Education. (2001). *Education White Paper 6: Special needs education: Building an inclusive education and training system.* Government Printer. **https://www.gov.za/sites/default/files/gcis_document/201409/educ61.pdf**

Rosenbaum, P., King, S., Law, M., King, G., & Evans, J. (1998). Family-centred service: A conceptual framework and research review. *Physical & Occupational Therapy in Paediatrics, 18*, 1–20. **https://doi.org/10.1080/J006v18n01_01**

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chapter 9

Decoloniality, Disability Studies and parental involvement in the schooling of children with impairments

Amani Karisa

Chapter learning outcomes

After completing this chapter, you will be able to:

- Understand the concept of decoloniality.
- Understand how education in Africa reflects colonial practices.
- Understand decoloniality in Disability Studies in Education.
- Understand the importance of collaborating with parents and communities in the schooling of children with impairments.

Preparatory activities

WATCH: Decolonial thinking and disability

Creator: Amani Karisa
Date: 2021
Duration: 12 minutes

READ: Decolonising (through) inclusive education?

Author: Elizabeth Walton
Year: 2018
Estimated reading time: 2 hours
File size: 266 KB

READ: Interview with Walter Mignolo: Key concepts

Author: E-International Relations
Year: 2017
Estimated reading time: 45 minutes
File size: 176 KB

REFLECTION

Estimated time: 10–15 minutes

With reference to the decoloniality video, the article by Walton (**2018**) and the interview with Mignolo (**2017**), how do you understand decoloniality in Disability Studies in Education?

Introduction

In this chapter, we take the important step of looking at our own African context and asking questions about some of the problems with adopting ideas that come from the Global North as well as the importance of acknowledging African experiences and knowledge. We use the concept of decoloniality to aid this exploration.

Understanding decoloniality in African education

We will explore the concept of decoloniality and look at why coloniality matters today and how education in Africa reflects colonial practices. Decoloniality is a way for us to re-learn the knowledge that has been pushed aside, forgotten, buried or discredited by the forces of modernity, settler-colonialism (the ongoing system of power that perpetuates the genocide and repression of indigenous peoples and cultures) and racial capitalism (the process of deriving social and economic value from the racial identity of another person) (**Decolonizing Humanities Project, n.d.**). The aim of decoloniality is to break away from Eurocentric knowledge hierarchies and ways of being in the world so as to enable other forms of existence on Earth (**Rebhahn, 2021**).

Why coloniality matters today

While colonisation may appear as something of the past, we continue to identify the presence of coloniality everywhere. This is because "the globe is still going through the globalization and solidification, even amidst various crisis, of a civilization system that has coloniality as its basis" (**Maldonado-Torres, 2016, p. 1**). Our societies in the Global South are continuously in the race to be civilised, be modern, be emancipated. But what does it mean to be civilised? What does it mean to be modern?

The "picture" that we sometimes get in our minds when we talk of civilisation or being modern, is mostly external from us. This picture is created by an external, resource-rich, Eurocentric entity, or what is called the Global North. Through coloniality, we in the developing world, or what is called the Global South, become non-beings; we lose our humanness, our agency, and tend to rely on the aspirations, philosophies and conceptualisations of the Global North regarding "modernity", "civilisation" and how we should live and conduct our businesses. This "continued unfolding of Western modernity is also the reinforcement … of coloniality" (**Maldonado-Torres, 2016, p. 1**) and is reflected in, for example, contemporary development policies, such as those related to inclusive education.

ACTIVITY

Estimated time: 10 minutes

Respond to the following prompts:

1. When did education in your country begin?
2. Where did it begin?
3. Why did it begin?
4. Who started it?
5. How did it grow and spread?
6. Where is it now?
7. Whose interests does it serve and why?

How education in Africa reflects colonial practices

Inclusive education is one of the major educational philosophies that has gained currency in the world today. It is what is "modern" in education, projected as an emancipatory practice of education. Many governments in Africa are pursuing inclusive education, as championed by global education policy frameworks such as the *Salamanca Statement and Framework for Action on Special Needs Education* (**UNESCO, 1994**). Before inclusive education, global education practice favoured special education, which generally meant providing segregated education to children with impairments. Before the thinking that children with impairments could receive education in segregated schools, global education practice favoured the institutionalisation of these children to receive care and protection rather than education.

GLOSSARY: Special education

"Special education", also known as "special needs education", refers to the education of children who differ socially, mentally or physically from the average child to such an extent that they require modifications of usual school practices. (Source: **Britannica, 2023**)

In all these ideas on how the education of children with impairments should be conducted, a common thread is that an external voice is telling us who live in the Global South what to do. Though policy and practice regarding the education of children with impairments in Africa has kept changing, the change is directed by an external voice. The question is, where is our voice? Can we have a role in defining the educational practice in our communities?

These questions are critical because a wholesale adoption of global policies (which are in reality Eurocentric without regard to the differing contextual realities in Africa) might be problematic. What does this mean?

1. Should we reject modernity (e.g. the policies and practises of education of children with impairments that come from the Global North)?
2. Or should we redefine modernity from our view and understanding of our world?

It is noted that rather than rejecting modernity entirely and retreating into a fundamentalist absolutism, we should redefine modernity's emancipatory outlook from our world as oppressed people. This would produce a redefinition of emancipation beyond the meanings imposed by European modernity (**Grosfoguel, 2011**).

Understanding decoloniality in Disability Studies in Education

What does decoloniality mean when it comes to our understanding of Disability Studies in Education? Importing ideas about the education of children with impairments wholesale from the Global North can be problematic, as some of the concepts do not speak to African children's needs. There is therefore a need for ideas from the Global North to be critically vetted before being applied to Global South contexts (**Grech, 2014**).

For example, the concept of inclusive education is undergirded by human rights discourse, which, according to Maldonado-Torres (**2017**), tends to elevate individual rights and autonomy. It is necessary for inclusive education to tap into indigenous African ideas of communality, which cherish belonging to the community as well as the possession of values such as compassion, empathy, reciprocity and solidarity (**Bannink et al., 2020**). Researchers have also suggested the need for poor African countries to redefine the concept of inclusive education, which emanates from resource-rich Western contexts, to address the immediate needs of the poorly resourced African communities (**Artiles et al., 2006**; **Enslin, 2017**; **Kalyanpur, 2016**). Consequently, the pursuit of social justice in the education of children with impairments in African contexts should be infused with local philosophical understandings, belief systems and practices, as well as the use of local cultural resources (**Meekosha & Shuttleworth, 2009**; **Muthukrishna & Engelbrecht, 2018**; **Phasha et al., 2017**). These indigenous values and practices should not be idealised, but should be pursued critically so as to resist any reproduction of exclusionary and oppressive African narratives towards people with impairments, such as those that lead to fear, ostracism and violence (**Mfoafo-M'Carthy & Sossou, 2017**; **Walton, 2018**).

In practical terms, a decolonial stance to the education of children with impairments could focus on what the existing formal education system shaped by Eurocentric ideologies can learn from indigenous cultures, needs and education systems. This would bring about a hybrid system of education that would not be categorised as Eurocentric or African, but one with its own identity and practices that seeks to address the practical issues facing Africa. A system of this kind would address pressing issues and problems in Africa, such as the need to democratise the classroom and be sensitive to social and cultural contexts within the curriculum and the syllabus (**Horsthemke & Enslin, 2009**).

Importantly, decoloniality calls for considering the views of people in the localities where global policies of education are translated into practice, as these people are "human" and not merely "bodies" that lack agency (**Fanon, 1967**). These people "on the ground" have a deep understanding of their needs and they know what interventions work best for them because of their particular contextual realities. Let us use evidence from a case study to back up the main points made in this chapter.

Case study on parental involvement in the schooling of children with impairments

In line with the decoloniality approach which seeks to raise the silenced voices of the recipients of Eurocentric policies, a case study was conducted (**Karisa, 2020**) to understand parental involvement in the education of their children with intellectual impairments in Kenya. This was with the recognition that:

- Parents of children with impairments in Africa, especially fathers, have often been associated with negative attitudes towards, and consequent neglect of, their children with impairments.
- Fathers are traditionally the heads of families and providers in African contexts.
- The schooling of children with impairments could be affected when parents do not take part in the affairs of these children.

Instead of “making parents get involved”, we talked to them empathetically to understand their perceptions and experiences regarding the schooling of their children with impairments. In other words, we attempted to resist seeing parents as “bodies” and tried to see them as “human”.

We also talked to some mothers specifically about how fathers were involved in the education of their disabled children.We noted that the fathers’ views centred on the ambivalence of the purpose of the school. The fathers (and the mothers) also highlighted the importance of focusing on functional skills. Below are some of the quotes from the fathers and mothers regarding these two aspects (including the quote from the "Insider perspectives” section above).

Ambivalence about the purpose of the school

So I see the special school is teaching her well. But on the other side, even writing her name, she doesn’t write it well. Which when I compare it with the regular school, it is different. So I see a challenge there. But I don’t know their system in this school. But I feel like at her age, she should be able to write down her name, her father’s name and things like those.

> *But in this school, it's as if we are paying the money just for the children to eat, because they eat here. So it's just eating and sleeping. When you think of it, the way the school acts, it's like in this school, they have made it a way of relieving the burden from the parent. It's better for the child to come and make noise here than to make noise for the parent at home... The parent is paying but he/she doesn't see the [educational] benefits for the child. So... the teachers consider the responsibility of teaching the children with disabilities as a way of getting what they [teachers] want.*

> *They [children] should be at a certain place where there is peace; not coming out, when they see something they run after it. So you can say it's a hospital, but it's not a hospital; it's a school but it's not a school. Though it is true the children are disabled, but they should at least be attentive … So, such things contribute to the way we are … sometimes we get disturbed by that situation of the children. If we could find them attentive in class being taught, then we could take more responsibility.*

Based on these quotes, the purpose of the school attended by the children with intellectual impairments was not clear to the parents. The lack of clarity for parents of children with impairments on the role of the school in terms of the care or education of their children resulted in parents distancing themselves from the education of their children. The parents would have been more involved if the school focused on imparting functional skills to the children, as can be seen in the following quotes.

The need to focus on functional skills

> *My child with a disability functions well at home in undertaking the tasks I ask her to do. However, when I ask her what she has been taught at school, she responds, "The work ends at school."*

> *Because he believes that she is not good in academics but she works best using her hands. When my husband is at home in the morning, he tells the child ... "Riziki, take this broom and sweep," and she usually does as instructed. My husband likes sending her to do manual chores; like if it's a cup, he says wash this cup, don't put it there. He says he believes the child is good at manual work. So if you take her to school it's like bothering yourself. So he likes sending her to do some chores.*

> *So for me, I have been considering stopping him from coming to the school so that the father teaches him any job, even if it's carpentry, and so forth.*

It is evident from the foregoing quotes that acquisition of skills that the children with impairments could use to support their day-to-day life was important. Parents wanted what the children were learning at school to be useful at home. Fathers taught their children the skills they perceived to be valuable at home.

What's really happening in this case study?

Further engagement with the parents in this case study revealed that the fathers sent their children to school because of fear of the government, as education was compulsory by law and they did not want to pay a fine or to be imprisoned. Otherwise, they did not think the education was really helping their children. In fact, they were teaching the children skills that they felt were important for the children to function in society themselves – skills required to become independent, such as toiling in the farm, cooking and washing clothes. They had observed children who were over 30 years old still in the school, trying to be made to learn things that, as the fathers said, were not really important to their lives. The parents sent their children to school as an investment to get skills that would lead to jobs and help them (and their parents) overcome the poverty challenge in this developing country. It means that for these parents, education had a real economic purpose and if schools failed to meet that purpose, they failed not only the children but also the parents.

This also tells us that families have a lot to offer when it comes to functional skills. A flexible education system is necessary to maximise individual children's capabilities and promote opportunities for meaningful occupation when they leave school. What is desirable is a family-school partnership that is based on community values that support social and economic inclusion by developing educational programmes that work toward these values, rather than a Eurocentric academic ideal.

REFLECTION

Estimated time: 20–30 minutes

After engaging with the story of parental involvement in the education of children with intellectual disabilities in Kenya, reflect on the following questions:

- If the case study school is not beneficial to the children with intellectual impairments, who is benefitting?
- Why do the parents still send the children with intellectual impairments to school if they are not benefitting?
- Can children be educated without going to school?
- What can be the place of the family and indigenous values/educational methods in the education of children with intellectual impairments?
- How can decoloniality or decolonial thinking assist in addressing some of the concerns raised by these parents?

Conclusion

In this chapter, we explored the concept of decoloniality, identified how education in Africa reflects colonial practices, discussed decoloniality in Disability Studies in Education and used a case study to demonstrate the importance of exhuming the voices that have been silenced in the pursuit of modern education practices. It is evident that listening and collaborating with parents in the schooling of children with impairments might lead to genuine transformation of the lives of their children with impairments, as well as those of their families. Decoloniality allows us to question or critique the policies and practices of education emerging from the Global North, with the goal of identifying ways that address the contextual needs of Africa. This does not mean a total rejection of ideas from the Global North, but creating a space for Africa to also define what is modern.

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section D

Disability Studies in Inclusive Education

Universal Design for Learning

chapter 10

Disability Studies in Inclusive Education

Overview: Universal Design for Learning

Elizabeth Dalton

Section learning outcomes

After completing this section, you will be able to:

- Understand the concept of Universal Design for Learning (UDL) in relation to Universal Design.
- Describe the principles of UDL in terms of representation, engagement and expression.
- Explore the guidelines for UDL and how they can inform decisions on how to vary curriculum and instruction for differing learners.
- Understand the organisation and structure of UDL guidelines and checkpoints, and how these can help all students to become expert learners in their own right.
- Explore how UDL can meet a wide range of learning needs in different contexts in the Global South.
- Explain how UDL can combine with reasonable accommodation (adjustments made in access/format/content for persons with disabilities) to provide targeted support for children with severe disabilities.

Introduction

In this section, we have the opportunity to explore in greater depth how UDL is an approach that makes learning environments accessible to all students and allows them to participate and succeed. We consider how UDL can benefit not only children with disabilities but also many other children with diverse needs.

Insider view: Perspectives on education

Hello. My name is Dr Elizabeth Dalton and I have been involved in the fields of education and special education since 1975, when I began working at a state-run residential institution for persons with developmental disabilities (known as "mental retardation" at that time) following my graduation from the University of Rhode Island with a B.A. in Psychology.

I actually worked in recreation, teaching the residents of this institution how to swim, or at least how to relax and enjoy being in the water. In that year, I learned much about myself and discovered what would be my lifelong professional calling – working with individuals who have widely varying learning needs and/or disabilities.

I went back to school, earned my special education certification and began teaching. After that, I took a position working with students with disabilities at a community college and later moved into university work – mainly focusing on teacher preparation and working directly with student teachers. Along the way, my interest developed around technology and how it could be used to expand access to learning for my students. Soon, I became aware of this new concept in education, Universal Design for Learning. I spent a year studying and researching with the people who developed the UDL concept, framework and guidelines. Now, as a consultant, UDL is an integral part of my life as an educator, a developer and a learner. Since 2005, I have worked with UDL, using the framework to guide a wide variety of professional development activities.

Early on, I helped to assemble teams of classroom teachers, university educators, and representatives of the Rhode Island Department of Education to learn the basic tenets of UDL and apply them to the process of lesson and unit planning, expanding access for students with differing learning needs. This led to the development of the Rhode Island Modified UDL Educator Checklist in 2009, a practical tool for teachers to use in implementing UDL in their planning and instruction. I have shared this checklist during the many UDL educator trainings I have carried out since, both in-person and online, at conferences and professional development workshops around the world. Always, I work to integrate the principles of UDL in my presentations to vary representation, expression and engagement with the materials, modeling UDL for the students. When teachers can experience UDL in this way, it brings home to them the possibilities that UDL offers in their own instruction to address varied learning needs. Over the years, I have worked with educators in South Africa, Australia, Kuwait, Brunei, and most recently India. Each of the participants was able to find their own path for thinking about the relevance of UDL and applying it in their own contexts to expand the scope of their instructional design, including a broader range of learners.

Each of you have a unique path that has brought you here to take this course, and each of you have important experiences that you bring to own learning and to the learning of others around you. All experiences are important – for you, your colleagues and your students – and these experiences have helped to shape who you are now, who you will become, and how you will use what you learn throughout this course. Let me share with you now a few brief ideas about UDL before you enter into the experiences of the next two chapters.

UDL is a relatively new term to the field of education, but it certainly is related to ideas that have existed in education for a long time. For example, the Visual-Auditory-Tactile-Kinesthetic (or VAKT) method of multisensory instruction dates back to the early work of Grace Fernald, who established the first known clinic for remedial instruction in 1921, in Los Angeles, California, USA. Ferland's work was followed by Samuel Orton and Anna Gillingham at Columbia University in New York City, who were studying children with language-processing difficulties (such as dyslexia) and applied the basic concepts of Fernald's multisensory instruction method in the area of remedial reading, eventually developing the world-famous Orton-Gillingham multisensory technique for teaching reading. This is just one example of possible ideas in education that you are already aware of and can apply to connect with your developing understanding of UDL and how it can be used to expand access for your learners through the intentional design of variation into the materials, methods and assessments you may use now, or in the future as a teacher.

Our further UDL work together is organised into two chapters: **Chapter 11** on UDL basics and **Chapter 12** on moving UDL into practice. Both chapters contain readings, reflections and activities, as well as some helpful videos to learn from. Our learning goals are ambitious, but I hope that by the end of this section, you will feel empowered to move forward and start trying some of the UDL concepts and strategies in your own educational settings. Thank you for your interest in expanding your knowledge and understanding of UDL in support of building a more inclusive environment for ALL in your classroom, or wherever you are teaching.

chapter 11

Disability Studies in Inclusive Education

Universal Design for Learning: UDL basics

Elizabeth Dalton

Chapter learning outcomes

After completing this chapter, you will be able to:

- Understand the concept of Universal Design for Learning (UDL) in relation to Universal Design.
- Explore the principles and guidelines of UDL and how they can inform decisions on how to vary curriculum and instruction for differing learners.
- Recognise the three different ways that UDL can be understood: mindset, curriculum design framework, and theory

Preparatory activities

READ: UDL and connected laws, theories and frameworks

Author: Elizabeth Dalton
Year: 2019
Estimated reading time: 90 minutes
File size: 383 KB

REFLECTION

Estimated time: 30 minutes

Reflect on the laws, theories, and frameworks relating to UDL, as discussed in the first preparatory reading "UDL and Connected Laws, Theories and Frameworks". Write a short (no more than 500 words – one page) statement about the laws, theories and/or frameworks that you are aware of, are relevant to you, or that you have worked with, that you want to keep in mind as you learn more about UDL.

WATCH: Universal Design for Learning: UDL at a glance

Creator: College STAR
Date: 2018
Duration: 6 minutes

REFLECTION

Estimated time: 15 minutes

After you watch the video, using your own words, write a short explanation of UDL – what it is and why it is important – something that you would want to share with your colleagues and students to introduce UDL.

Introduction

In this chapter, we have the opportunity to learn what is meant by UDL and how an understanding of UDL can help you to make learning environments accessible to all students so that they can more fully participate and be successful in learning. We consider the basic core principles of UDL, the scope and purpose of the UDL guidelines and checkpoints, and how these can impact the accessibility of instruction. We also consider three different ways of thinking about UDL – as a mindset, as a curriculum design framework, and as a theory of instructional design.

What is meant by UDL?

UDL is an approach for designing and developing instruction to reach the widest possible range of learners with differing needs within the same classroom or instructional setting through one comprehensive instructional plan that imbeds variation. As you will see, this type of approach, when used effectively, offers a practical means for moving us closer toward the achievement of truly inclusive education in our schools and elsewhere.

When we deconstruct the term, UDL's true purpose is revealed. "Universal" means "including or covering all" (Merriam-Webster); "design" means "to create or construct according to plan" (Merriam-Webster); and "learning" means "the acquisition of knowledge or skills through experience, study, or by being taught" (Oxford Dictionary). Therefore, **UDL should be understood as the process by which skills and knowledge are acquired according to a plan that is created to include or cover all students.**

UDL as a mindset

One of the reasons that it is possible to think of UDL in this way is because, while it is true that every learner is different from the next learner, the ways in which these differences can be understood and then planned for are actually systematic in nature. This concept of "systematic variability" is at the heart of the UDL approach and it allows us to develop a different mindset about what is possible for learners and how we can help them to achieve these possibilities.

CAST defines systematic variability in their landmark text, *Universal Design for Learning: Theory and Practice* by Meyer, Rose, & Gordon (**2014**):

> "Learners are highly variable, but that variation is not chaotic. Of course, each learner is unique; but learners share common, predictable patterns of variability that are useful to consider when designing learning environments." (p. 29)

It was at CAST in Massachusetts, USA, that the UDL approach was first conceptualised and later operationalised. In the early 1990s, the staff of CAST had been working with children with varying types and degrees of disabilities and differing needs, trying to find different ways to support these different learners through the creative use of various technologies. As they worked toward this goal, the staff began to realise that ***it was not the students that were disabled, it was the environment that was disabled*.**

The children all had different learning capabilities and learning challenges, but when appropriate adjustments were made to the learning environment, materials and instruction, they could learn successfully. The staff also observed that these adjustments followed various patterns, and that the patterns of adjustment and variation could be defined, planned for and followed in order to develop learning environments in which all of the students can benefit from the instruction and all can demonstrate what has been learned in differing ways. This realisation of what is now known as "systematic variability" led to the development of the three core guiding principles of UDL: multiple means of representation; multiple means of action and expression; and multiple means of engagement.

As CAST sought solutions for how they might "fix" learning environments to be more useful and accessible for learners who learned in different ways, they turned to the field of neuroscience, which focuses on the science of how the brain functions, and more specifically how the brain learns. They were also aware of the earlier concept of Universal Design (Mace et al., 1996), which had a set of principles to follow in order to make physical spaces usable and accessible for all who wanted to use them.

By blending ideas from neuroscientific research with the concept of "universality", CAST developed an innovative mindset, a belief in the possibility of achieving such universality in not only physical environments, but also in learning environments. Studies from neuroscience revealed that different parts of the brain were responsible for different components of the learning process. CAST focused on three specific areas of the learning process as being uniquely important: the process of recognition of information; the process of analysing, making sense, and responding to information; and the process of connecting with and being motivated by the information.

From their analysis of the research and the conclusions they drew, CAST eveloped the three core UDL principles referenced earlier, which supported their universal learning mindset. Since that time, CAST has been working to expand and infuse this universal learning mindset within all aspects of education.

UDL as a curriculum design framework

Let's talk now about UDL thorough a different lens – as a curriculum design framework. Once the UDL principles were developed, it became clear that more would be needed for the field of education to be able to understand the full potential of UDL as a new mindset for achieving inclusive education. CAST dug deeper into neuroscientific research and also considered other existing ideas and approaches on education that relate to inclusion. Many of these related these ideas and approaches are presented in Figure 1 (Dalton, 2016).

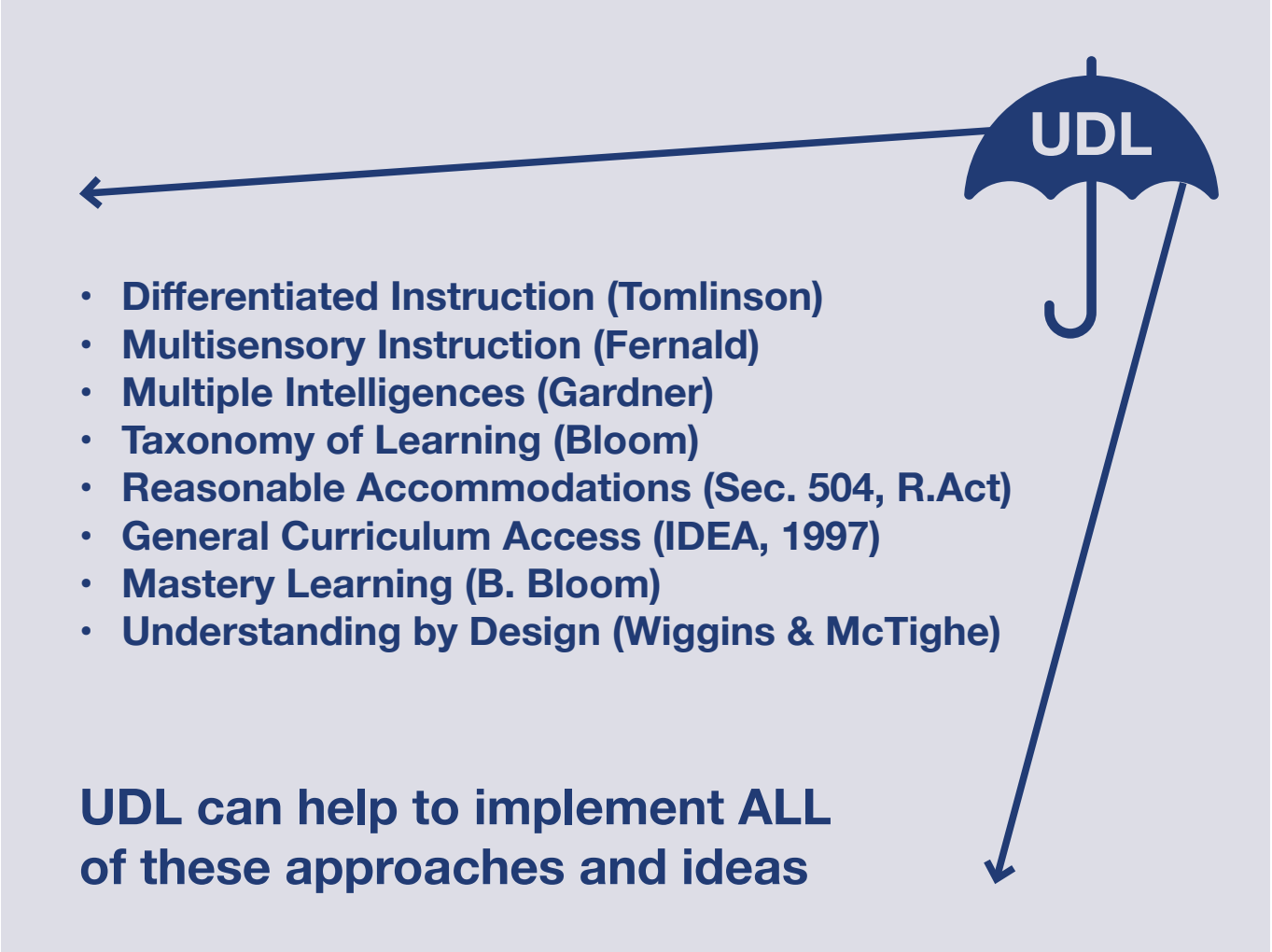

Figure 1: UDL-related ideas and approaches (Adapted from: Dalton, 2016)

By consulting neuroscientific research and considering the varied approaches relating to concepts of inclusion and inclusive education for all learners (just some of which are included in Figure 1), CAST went on to develop the UDL guidelines and associated checkpoints within each guideline to help clarify the key components of each principle and how educators could use these concepts to design curriculum that integrated systematic variation and supported all learners.

The UDL guidelines have gone through several versions over the years. The graphic organiser for the latest CAST iteration of the *Universal Design for Learning Guidelines, Version 2.2* (**CAST, 2018**) is shown in Figure 2. The UDL principles are displayed across the top, and the three guidelines associated with that principle are shown in the column below the principle. You will also see that there are checkpoints listed within each of the nine UDL guidelines. These checkpoints offer explanation of what should be considered for use in designing instruction in order to implement that specific guideline. As you can see, there is a great amount of detail

involved in the UDL guidelines. This graphic may be difficult for you to read or to access, as some of the print is necessarily quite small in order to fit in all of the necessary information. Don't be discouraged – there is a tremendous amount of information about the principles, the guidelines and the checkpoints available on the CAST **website**. Here you can find interactive materials that provide in-depth and accessible content about the UDL guidelines and many other UDL-related resources.

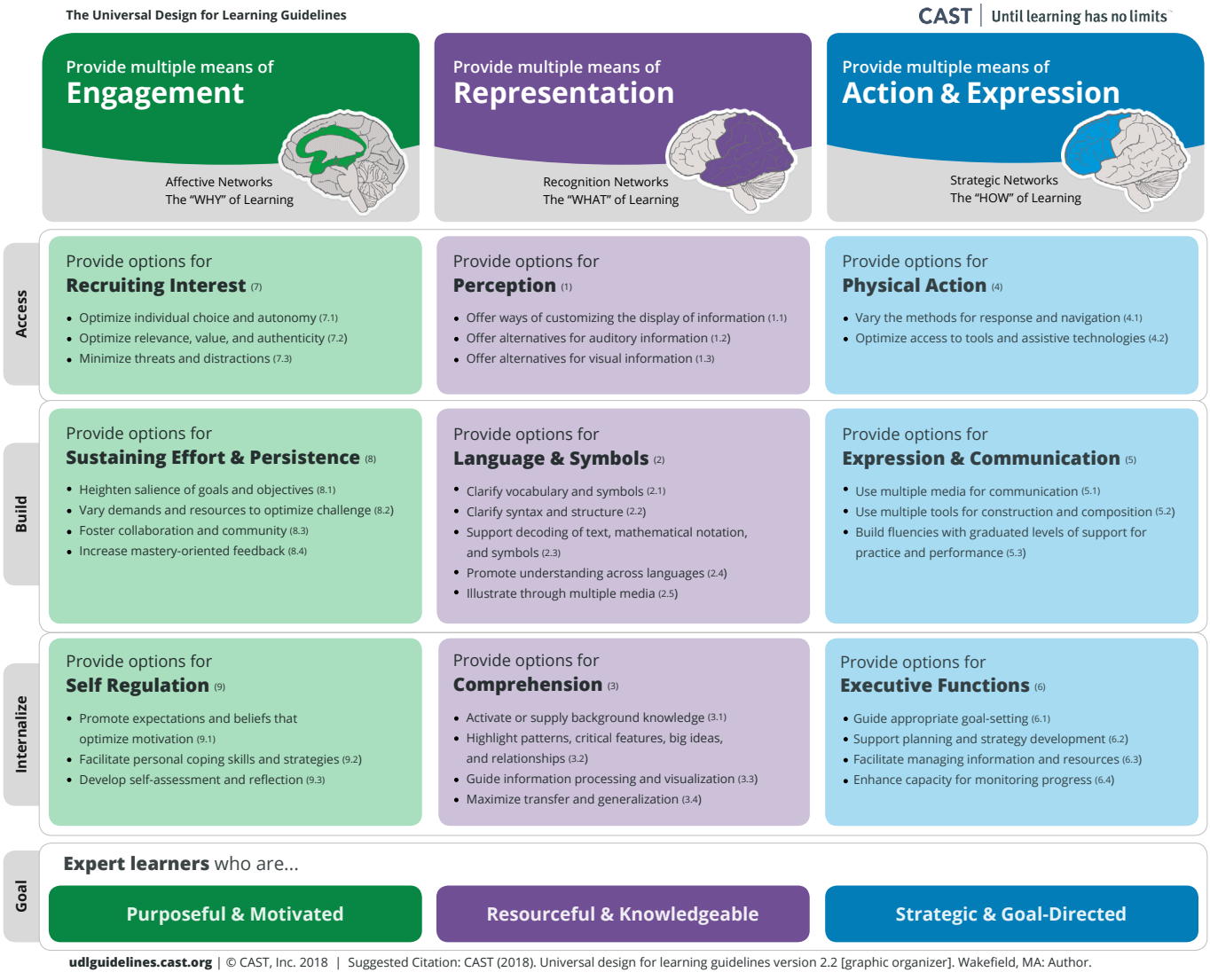

Figure 2: *Universal Design for Learning Guidelines Graphic Organizer, Version 2.2* (Source: **CAST, 2018**)

In **Chapter 12**, we will discuss how these UDL principles, guidelines and checkpoints can be applied in practice to expand the opportunities of inclusive education to all learners.

UDL as a theory of instructional design

The third way of thinking about UDL is as a theory of instructional design. This author, along with several colleagues, has been exploring the potential role of UDL as an actual theory in the area of education known as instructional design. Other professionals have as a theory of inclusive practice in educational psychology (**Sewell et. al., 2022**). We argue in Gronseth, Stefaniak and Dalton (**2021**) that:

> "[O]ver the past 30 years, UDL has 'matured' from solely a curriculum design framework to now articulating key components characteristic of instructional-design theories" (p. 1) [such as in the widely recognised ID theories of Gagné (**1965**) and Reigeluth (**1983**)].
>
> And
>
> "Based on our study of Reigeluth's (1999) characteristics of instructional-design theories, we conclude that UDL indeed fulfills these characteristics by addressing method variables such as instructional strategies, instructional platforms, and learning affordances as well as situational variables that comprise desired learning outcomes and instructional conditions." (p. 4)

We believe that the importance of positioning UDL as an instructional design theory elevates its position within education as a whole, and this will make it much easier for leaders of educational systems around the world to embed UDL as a comprehensive means to achieve the implementation of inclusive education. The Merriam-Webster Dictionary defines theory as "a plausible or scientifically acceptable general principle or body of principles offered to explain phenomena". Educational researchers rely on theories to organise information, explain events and make predictions. While UDL is widely accepted as a framework to follow to reduce educational barriers and to develop instruction that effectively includes the wide range of learners in today's classrooms, elevating UDL as an instructional design theory can lead to greater systemic changes across educational environments. Educational leaders rely on researchers to provide them with evidence prior to these leaders supporting any movement toward comprehensive systems change (which expansion of inclusive education calls for). When UDL can be accepted as a theory of how education can and should be designed, it will have the potential to begin a global movement toward meaningful inclusion and inclusive education for all.

Conclusion

UDL has been in existence for approximately 30 years, with its roots initiating from the work of the staff at CAST. Their desire to support the learning of all students, largely through the powers of technology, as well as their belief in Universal Design, leveraged the development of the concept of UDL and later of the UDL curriculum design framework. The principles of UDL, however, go far beyond the use of technology to create universally designed learning environments.

UDL principles embrace the importance of accessing the full scope of variation in materials, instructional strategies and assessment – whether they are high-tech, low-tech or no-tech – to offer guidance for developing educational learning environments that are not only accessible for all learners, but also offer varied means to build on and internalise learning. The ultimate goal of UDL is to support the development of motivated, knowledgeable and goal-directed learners by reducing barriers to learning through systematic variation that is embedded in the curriculum from the start. UDL is sometimes referred to as a "front-loaded" instructional design model, since the many variations are built directly into the plan of instruction from the start, rather than needing to "retro-fit" a curriculum when needs or learning problems arise. UDL therefore supports the natural variation of learning within every classroom. In this way, UDL is leading efforts around the world to achieve an inclusive education for all.

Before moving on to the **next chapter**, you may like to engage with this practice activity designed to help you begin to connect the framework and guidelines of UDL with your own practice. Take some time and give it a try!

ACTIVITY

Estimated time: 45 minutes

Read: Universal design for learning guidelines version 2.2 [graphic organizer]

Author: CAST
Year: 2018
Estimated reading time: 10 minutes
File size: 434 KB

Universal design for learning guidelines version 2.2 [graphic organizer] (CAST, 2018) is organised into three different categories of detail – the first category is the three core principles. The second is the guidelines associated with each principle. The third is the various checkpoints included in each of the nine guideline areas. Think about this organisation and how it can help you to think about diversifying your curriculum and instruction. While this organiser can be understood vertically, it also has an important horizontal organisation in rows. These rows show different developmental levels at which UDL can, and should be, implemented. They are: Access, Build and Internalise.

Think of a lesson or a teaching activity that you have done recently or that you have an interest in doing. Consider the three levels of UDL described above and shown on your UDL graphic organiser. Develop a table (by computer or by hand) that gives the name of the teaching activity and a brief description. Below, make three columns, labelled: Access, Build and Internalise. As you think about your lesson, in each column, provide an example of an idea you have to help students to:

1. Gain **access** to the lesson.
2. **Build** upon their initial learning to grow their understanding.
3. Start to **internalise** this knowledge to become more independent and to be able to apply it themselves in new ways.

Share your chart in one of three ways: as a digital document, as a scanned document, or by taking a picture of it to share with others for discussion.

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chapter 12

Disability Studies in Inclusive Education

Universal Design for Learning: UDL in practice

Elizabeth Dalton

Chapter learning outcomes

After completing this chapter, you will be able to:

- Identify ways in which Universal Design for Learning (UDL) can make a significant difference in the look, feel and actions of learning construction.
- Understand the tools available to help with UDL planning and application in practice and how to locate and use them.
- Explain how UDL can combine with reasonable accommodations to provide targeted support for learners with disabilities.

Preparatory activities

READ: Universal design for learning guidelines version 2.2 [graphic organizer]

Author: CAST
Year: 2018
Estimated reading time: 15 minutes
File size: 434 KB

WATCH: Universal Design for Learning in higher education

Creator: Humber Centre for Teaching and Learning
Date: 2019
Duration: 5 minutes

REFLECTION

Estimated time: 20 minutes

While the concept and framework of UDL was initially developed with Grade 1–12 learners in mind, it has grown to be recognised as an effective approach for diversifying higher education learning environments. The video offers numerous ways that UDL can be applied in higher education settings. Select at least one of these ideas and discuss its relevance to adult learners with differing needs and developing proactive reasonable accommodations.

READ: Rhode Island Modified UDL Educator Checklist – Version 1.3

Author: Elizabeth M. Dalton & Debbie Abruzzini
Year: 2019
Estimated reading time: 10 minutes
File size: 220 KB

READ: Step-by-step planner: UDL lesson design

Author: Understood For All
Year: 2019
Estimated reading time: 10 minutes
File size: 38 KB

REFLECTION

Estimated time: 20 minutes

These readings provide greater depth of information about some of the ways that UDL can be used to help build variation into the design of your instruction in order to address the diverse needs of learners. Consider the examples you read and comment on one way that you would want to use the principles of UDL in your own teaching to address a student or students' need(s). Describe briefly why you would begin here and a bit about what that might look like. Use the *Universal design for learning guidelines version 2.2 [graphic organizer]* to explore ways in which your identified student need could be addressed.

Introduction

In this chapter, we will explore in greater depth how UDL can benefit not only learners with disabilities, but also many other learners with diverse needs, and how it can benefit learners of **all ages**. We will take steps toward learning some of the ways that UDL can inform and be incorporated into the classroom and will consider some of the tools that can help with the goal of increasing meaningful inclusion for students with diverse needs and abilities.

What does UDL look like in the learning environment?

In the conclusion of **Chapter 11**, we learned that the ultimate goal of UDL is to support the development of motivated, knowledgeable and goal-directed learners by reducing barriers to learning through systematic variation that is embedded in the curriculum from the outset. Now, let's discuss what this really means and what UDL might look like when its use is integrated in environments serving Grade 1–12 students and environments serving adult students in higher education settings.

To begin our discussion, it is important to consider how the UDL curriculum design framework, with all of its components, translates into the practice of educators in a real and understandable way. One relatively simple and helpful way to consider this it through the

model of curriculum components developed and used by CAST in their ***Universal design for learning guidelines version 2.2***, referred to in the preparatory activity at the start of this chapter. This model has four components that are interrelated and necessary in order to design any curriculum at any level of education. The four components of curriculum are: goals, materials, methods and assessments (**CAST, 2018**). The relationship between these components is not linear; each component interacts with and depends upon the other three in order to design a curriculum that is complete and can lead to learning success for all learners. Now, let's think about the relationship between the CAST guidelines and the four components of curriculum.

Goals and UDL

It is important to have clear goals in mind for learners, whoever they are, for any learning activity – specifically, *what* is it that the learner needs to learn? Goals may come from sources that are standardised or they may be more customised or personalised.

Standardised goals are those where the same outcome or product is expected from every student, at least at a minimum level. These goals may be set by national or state sources, or other professional training areas (such as nursing, accounting, teacher certification, etc.). Standardised goals often are accompanied by standardised assessments that every learner must take and pass in order to demonstrate competence. Standardised goals cannot be adapted to address learners' varied needs and interests, so other means must be used in order to make standardised goals more accessible and attainable for all.

Customised goals are those that have been developed to address areas of learning need that are personal to the individual student. This may be due to variation in the student's physical, sensory, emotional or cognitive needs, or other factors. Regardless of the source or type of learning need, this student will work towards the achievement of specific, customised goals in line with their identified needs. Often students who need customised goals have been diagnosed with a particular area of disability and may therefore be eligible for reasonable accommodations to the learning environment and to learning processes. Sometimes customised goals are framed as part of an individualised educational plan or programme within the learner's educational setting.

Whether goals are standardised or customised, we need to look to the other three areas of curriculum – materials, methods, and assessments – to discover how the CAST guidelines can help us to vary how learning can happen.

Materials and UDL

Classroom and educational materials naturally vary significantly, depending upon the setting in which they are being used. Materials can be physical and tangible, or they may be electronic – existing on the screen of a computer or smart phone. Regardless of whether they are physical or electronic, variation of materials is one of the means for pursuing the implementation of certain UDL guidelines. For example, if you wanted to address the UDL principle of providing multiple means of representation in your educational setting, the CAST UDL guidelines provide three guideline levels for doing this, and each can benefit by using varied materials. These levels are: **access**, **build** and **internalise**. They are located on the far left side of the CAST chart.

At the **access** level, we can provide options for perception by varying the ways in which we display information. For visual information, we can change the size, colour, contrast, spacing and layout of the material on the page or screen, or we can use alternative visuals like graphics, video, animation, or even actual physical objects. For auditory information, we can change the speed, timing, cueing, pitch and volume of the material to be accessed, or we can use alternatives like voice-to-text or visual sound alerts.

At the **build** level, we can provide options for language and symbols by using highlighting to identify key vocabulary or components of words, provide translations for key information in second languages, and provide non-language alternatives for concepts through graphics, animation, illustrations and other enhancements.

At the **internalise** level, we can provide options for comprehension through the use of various concept organisers like KWL charts (capturing what students “know”, “want to know” or have “learned”) and concept maps, embedded prompts and cues leading to key ideas and various types of checklists.

Additional ideas for varied methods can be found in the ***Rhode Island Modified UDL Educator Checklist — Version 1.3***, which was adapted from the CAST guidelines, and on the **CAST website**.

Methods and UDL

Instructional methods and approaches are next in considering how best you can bring variation into your classroom and the design of your curriculum to address a wide range of student needs, capabilities and interests.

It is not only the things (materials) that are used in the educational setting that can vary; just as important are the ways (methods) that the teacher uses them to convey content that will help a diverse range of students to better understand, engage with, and ultimately learn the desired content. Sometimes, direct, point-by-point instruction with demonstration may be effective. However, many students may need to be more directly involved with hands-on activities in order to learn most effectively. In order to facilitate this, educators can set up peer-to-peer discussion groups so that students can learn from each other, and then report back for feedback and clarification. Presenting lessons through multiple means (orally, visually and even through tactile engagement) can convey concepts through a variety of senses – making it more accessible to students who receive and may understand information better through one sensory pathway over another, or who may benefit from reinforcing information through multiple means at one time in order to strengthen their learning.

When we consider the UDL curriculum framework and guidelines, we find that varied methods are embedded throughout the guidelines of the three core UDL principles. Again, it is helpful to consider the three levels of “access, build and internalise” to understand the full scope of how varied methods support instructional differentiation.

At the **access** level, considering the principle of multiple means of action and expression for students, varied methods can make a significant difference by offering multiple ways that students can access and use materials, such as by hand, by voice, by using a simple switch, or by using a keyboard. Considering multiple means of engagement, access can be supported by varying the content or context for learning; by varying the timing, pace, length and sequencing of tasks; or by varying the level of novelty and predictability of the learning tasks.

At the **build** level, considering multiple means of representation, we could vary the rules or the complexity of the language we use to help clarify our instruction, or we could provide key information and vocabulary in both dominant and second languages to build the connections across different languages. Considering multiple means of engagement at this level, varied methods can help to build knowledge and skills by varying the specificity of goals and restating learning goals for greater clarity; or you can vary the level of difficulty of core activities and provide scaffolds to vary the levels of challenge and support. You can also encourage learner perseverance and effort by giving frequent, ongoing feedback. To continue to build students’ means of action and expression, you can encourage students’ use of differing strategies to

work toward the same outcome and encourage work with different mentors who can offer guidance on different learning processes. All of these ideas help students to build their own capacity to better demonstrate what they have learned.

At the **internalise** level, when looking at multiple means of representation, we can activate the background knowledge of students through the use of various images and concepts. We can also apply strategies to highlight essential information in a lesson by varying the emphasis we provide on key elements, using prompts, cues and organisers to better identify key elements and ideas; or you can apply various mnemonic devices, note-taking strategies and other means of demonstrating connections between new ideas and prior knowledge to support independent development of memory skills and comprehension. Considering multiple means of engagement, some of the varied methods that can move students toward increased self-regulation include modelling or coaching students in goal setting, sharing different ways of managing frustration and developing effective internal controls, and demonstrating different ways to collect and reflect upon one's own behaviour over time.

To help students better internalise their own best ways of acting and expressing what they have learned, you can introduce students to tools such as checklists or prompts that support individualised goalsetting or guide them in the transition from long-term goals to setting short-term objectives through processes such as "think alouds". You might even want to introduce students to self-monitoring techniques, such as the use of guiding questions, self-reflection activities or self-assessment strategies. All of these ideas can aid students in becoming more independent and self-reliant learners by developing their executive decision-making skills.

Additional ideas for varied methods can be found in the ***Rhode Island Modified UDL Educator Checklist — Version 1.3***, which was adapted from the CAST guidelines, and on the **CAST website**.

Assessment and UDL

The area of student assessment is always of great interest to those who seek to integrate UDL into their instructional practice because there are times at which assessments are harder to vary, such as in nationally standardised assessments or professional certification assessments. These standardised assessments are bound by the laws of the country that protect equity of access to participate in the assessments. What this will usually mean is that these assessments need to allow what is referred to as "reasonable accommodations".

Reasonable accommodation can be described as "a change, exception or adjustment to a rule, policy, practice or service that may be necessary for a person with disabilities to have equal opportunity to use and enjoy a dwelling, including public and common use spaces" (US Department of Housing and Urban Development, 2023). This same definition applies to necessary accommodation that must be made so that every student will have equity of access and an opportunity to learn. This does not impact the nature of the content or the *what* of learning, but it relates to how the assessment would be carried out and what adjustments are made to equalise access. The application of reasonable accommodations does, however, not negate the role that UDL can play in reframing how we think about assessments and the assessment process.

First, as we reflect upon the four components of curriculum explored in this chapter (goals, materials, methods and assessments), it is important to recognise the necessary connection between the stated goal and the nature of the assessment of that goal. A goal statement should not specify the methods or materials that will be used in order to reach that goal, as this would limit the varied means possible which could be used to teach or reach that goal. For example:

Do this: "The student will read [their] third-grade science materials and respond to questions on the materials with at least 80% accuracy."

Don't do this: "The student will read each chapter of [their] third-grade science textbook silently within 20 minutes and will respond to the questions at the end of the chapter, in writing, with at least 80% accuracy." (**Ikuta, 2019, p. 9**)

The example demonstrates how the inclusion of specific materials and/or methods to be used restricts the options and flexibility of the educator to vary the focus of their instruction and it restricts the options available to the student to demonstrate their knowledge in a variety of ways. This principle applies to students at any level of instruction.

Multiple means of assessing student understanding

To address the challenges that both teachers and students face around assessment, the team of educators who developed the ***Rhode Island Modified UDL Educator Checklist – Version 1.3*** took the liberty to develop an unofficial fourth UDL principle: multiple means of assessment of student understanding. This fourth principle seeks to make more explicit the options that UDL can offer for developing and delivering assessments that educators use in their own classrooms. These options may or may not apply for standardised assessments – if this is the case, reasonable accommodations should be used.

There are five different areas that relate to this fourth principle in order to vary the parameters around determination of learning outcomes. These include: options for methods, options for formats, options for scope/range/level, options for product and outcome, and options for feedback. When we have the opportunity to use these various means in the design and delivery of assessments, students will more independently access and engage in the assessment process and will ultimately demonstrate better performance due to the reduction of restrictive barriers.

Conclusion

This chapter seeks to take some of the theoretical ideas relating to UDL and place them in the more applied context of what educators can actually do to bring variation into their instruction, and what that might look like in certain instances. There is much more to be learned about UDL, but I hope that the information and the exercises and activities provided in this chapter have expanded your understanding of UDL and given you a chance to try your hand at applying UDL in at least some small way that is relevant to your instructional level and to your students. While many of the examples of UDL in practice tend to be for students in Grades 1–12, as you learned in the video Universal Design for Learning in Higher Education, UDL is truly relevant for all learning environments at every level, including higher education and adult education. As you work more with the UDL framework and the various UDL tools and resources, you will find your own best path for applying UDL.

ACTIVITY

Estimated time: 30 minutes

This chapter introduces two UDL planning tools that you can use in designing, preparing, and diversifying your own instructional units. The first tool (the *Rhode Island Modified Educator Checklist*) can be used for observing UDL in classrooms or other learning environments, or for planning your own instructional materials and strategies for implementing UDL. The second tool (the ***Step-by-step planner***) offers a three-step approach for planning the integration of UDL into lessons and teaching. These tools can work together to offer many ideas for your own UDL planning and instructional design.

You have been introduced to different ways of diversifying instruction in your preparatory reading. Now, take the time to put these ideas and resources together and try your hand at applying UDL to achieve a learning goal.

Begin by downloading both planning tools. If you can, it may also be helpful to print these documents. If you are not able to print, use a separate sheet of paper to record your responses to the activity questions.

Review the *Step-by-step planner* components and think about the three steps provided in this planner. Identify a learning goal that you want to use for this activity.

Fill in the sections of the planner as best you can by thinking of the learning goal that you identified by using the *Rhode Island Modified UDL Educator Checklist* and the readings for ideas for varying instructional methods, materials and assessments for students to achieve the learning goal. Document your ideas.

Reflect upon the experience and what you found to be easy, and what was much harder to do. Discuss your experience with someone else (such as a colleague, fellow student or instructor). To develop competency in using UDL, it will take both time and practice – this is **just the start** of your journey. Do not be discouraged – greet the challenge openly and don't try to take on too much all at once. Don't be afraid to use the tools that you have been introduced to and talk with your colleagues to gather different ideas about how UDL can help to vary your instruction and increase access to learning for all students.

References

Ikuta, S. (2019). *Handmade teaching materials for students with disabilities*. IGI Global. **https://doi.org/10.4018/978-1-5225-6240-5**

US Department of Housing and Urban Development. (2023). Reasonable accommodations and modifications: The Fair Housing Act. US Department of Housing and Urban Development.

section E

Disability Studies in Inclusive Education

Hearing impairment

chapter 13

Disability Studies in Inclusive Education

Overview: Hearing impairment and curriculum adaptation

Jabaar Mohamed

Section learning outcomes

After completing this section, you will be able to:

- Reflect on experiences of children who are D/deaf or hard of hearing in an empathetic way.
- Understand the nature of hearing loss and its causes.
- Examine the effect of severe to profound hearing impairment on children who are D/deaf in the classroom.
- Identify barriers to learning experienced by learners who are D/deaf or hard of hearing.
- Explain the importance of human rights and policies for learners who are D/deaf or hard of hearing.
- Communicate effectively and respectively with members of the D/deaf community by using appropriate terminology that reflects an understanding of their linguistic conventions, culture, perspectives, values, beliefs and experiences.
- Develop an understanding teaching strategies and accommodations that promote inclusive learning environments to address D/deaf students' difficulties with auditory processing, speech perception and language development.
- Apply teaching strategies for inclusive learning in their own educational context for learners who are D/deaf or hard of hearing.
- Describe advantages and disadvantages of different approaches to educating children who are D/deaf or hard of hearing.
- Analyse how the principles of Universal Design for Learning (UDL) can be used to create conducive learning environments for learners who are D/deaf or hard of hearing.

Introduction

In a situational analysis undertaken to inform teacher education in South Africa for children with severe disabilities (**McKenzie et al., 2018**), it was found that learners who are D/deaf or hard of hearing want to be taught by teachers who are proficient in sign language, specifically South African Sign Language (SASL). They would also like their teachers to be able to adapt the curriculum they are taught to cover the full range of subjects offered in the national curriculum, including language-based subjects that are seen to be "difficult" for learners who are D/deaf

or hard of hearing. But it is not only their academic needs that need to be attended to; learners also want their teachers to make an effort to get to know who their learners are and what their support needs may be.

In order for teachers to get to know their students, they need to be able to communicate effectively with them. This means that teachers need support in learning sign language – not just in once-off workshops, but also through ongoing support that is embedded within the curriculum and supported by the district education teams. While not all teachers will acquire sign language skills in an inclusive school, they should, at the very least, know how to work with sign language interpreters and advocate for their presence in classrooms where learners who are D/deaf or hard of hearing are taught. Teachers need to understand the best ways to work with learners who are D/deaf or hard of hearing, which means they need to understand what it is like to not have auditory information and to have to rely on other senses. This may require adapted teaching methodologies and learning environments that are enriched with accessible materials that can compensate for the lack of auditory information.

In this section, we will address the concerns of learners who are D/deaf or hard of hearing by discussing what learning at school is like for these children, how they perceive their world and how they would like to be supported. We will talk about the importance of hearing and acknowledging the experiences of children with disabilities and their families, and how curriculum needs to be adapted through UDL to meet their learning needs. We will also recognise the need for psychosocial support in both inclusive and special-school settings.

We will provide a brief overview of the nature of hearing loss; its causes and how it affects learners in the classroom; and make suggestions as to how the barriers they experience can be overcome through flexible teaching methods, as embodied in the UDL approach, as well as with the necessary individual support that might be needed. This will raise some questions about the different models for D/deaf education and their relative focus on using oral or sign language as methods of communication.

Before we start, I will share my personal perspective on what it is like to be part of the D/deaf community. You can also watch my video on “Understanding Deaf culture and community”.

WATCH: Understanding Deaf culture and community

Creator: Jabaar Mohamed
Date: 2021
Duration: 11 minutes

Insider view: Perspectives on education

In this extract, I share my personal perspective on what it is like to be part of the D/deaf community.

I am the only deaf member of my family. My siblings cannot sign, but they understand Deaf culture. Growing up deaf in the hearing world and in the deaf world is different. It is important for deaf children to have deaf role models and access to sign language. After university, I realised I had been using total communication (speaking and signing simultaneously) which is the wrong structure. I learnt the correct South African Sign Language (SASL) structure while socialising with the Deaf community. Now I know international sign languages and deafblind tactile sign language as well. SASL gives me full access to communication, unlike the hearing aids I have worn since age two.

I started signing at age seven, being taught by my peers at the deaf school. I previously attended an oral school to improve my speech. Most teachers were unable to sign, forcing us to speak. I failed repeatedly because my pronunciation was incorrect. Though, I passed school subjects because of their visual aspects. Maths was easy because it did not include spoken language, unlike English which was difficult. English became easier once we went on school outings and I could write essays based on my visual, real-life experiences.

In high school, we integrated with hearing schools, competing in debating competitions, which developed my self-confidence and sportsmanship. I was an avid learner; I wanted the same syllabus as the hearing schools. My dream of becoming the first deaf doctor was squashed because we could not choose our subjects. Some teachers were supportive, teaching us manners and professionalism. As a school youth leader, I learnt leadership and finance skills which help me with my career today.

After university, it was empowering working for a long-running adult literacy campaign teaching reading and writing to illiterate deaf people who had left school at a young age or had no access to schools. There are high rates of unemployment and low levels of education within the Deaf community. I believe it is possible to develop an educational institution for uneducated deaf people to improve their lives through education. To do so, both the hearing and Deaf communities must work together ensuring accessibility for the Deaf, access to good education and a better understanding of these needs.

REFLECTION

After reading my perspective on my personal circumstances, what are your thoughts on the experiences of members of your community who are D/deaf or hard of hearing and how they are able to communicate with others?

Reference

McKenzie, J., Kelly, J., & Shanda, N. (Eds.). (2018). *Starting where we are: Situational analysis of the educational needs of learners with severe to profound sensory or intellectual impairments in South Africa*. Disability Innovations Africa. **https://health.uct.ac.za/media/395032**

chapter 14

Disability Studies in Inclusive Education

The nature of hearing impairment and its impact on learning

Vera-Genevey Hlayisi

Chapter learning outcomes

After completing this chapter, you will be able to:

- Reflect on experiences of children who are D/deaf or hard of hearing in an empathetic way.
- Understand the nature of hearing impairment, terminology around hearing loss and commonly known causes.
- Examine the effect of severe to profound hearing impairment on children who are D/deaf in the classroom.
- Identify barriers to learning experienced by learners who are D/deaf or hard of hearing.
- Explain the importance of human rights and policies for learners who are D/deaf or hard of hearing.

Preparatory activities

WATCH: Being part of the Deaf community

Creator: Jabaar Mohamed
Date: 2021
Duration: 10 minutes

READ: Critical needs of students who are deaf or hard of hearing: A public input summary

Author: Christen Szymanski, Lori Lutz, Cheryl Shahan & Nicholas Gala
Year: 2013
Estimated reading time: 20 minutes
File size: 785 KB

READ: Deafness and hearing loss

Author: World Health Organization
Year: 2023
Estimated reading time: 10 minutes
File size: 193 KB

WATCH: Talk Africa: Spotlight on deaf rights

Creator: CGTN Africa
Date: 2021
Duration: 30 minutes

REFLECTION

Estimated time: 30 minutes

Reflect on themes and issues raised in the resources above and create a five-minute vlog or short blog commenting on the videos. Consider who is part of this population, the common themes raised, and the key issues which you feel come out of these videos. How could these issues be taken forward?

Introduction

In this chapter, we discuss what hearing loss is and its impact upon learning. We examine the concepts of D/deaf and hard of hearing and find out what it is like for D/deaf or hard of hearing children, how they perceive their world and how they would like to be supported. We will talk about the importance of hearing the voices of children with disabilities and their families and how the curriculum needs to be adapted to meet their learning needs. We will also recognise the need for various kinds of support in both inclusive and special school settings. Lastly, we explore and introduce the human rights and policies for learners who are D/deaf or hard of hearing.

The nature of hearing impairment

In this section, we will unpack the more technical aspects of hearing impairment in terms of what it is physiologically and how it is defined according to clinical guidelines by the World Health Organization (WHO).

The sense of hearing

Hearing is one of the basic human senses with which we perceive the sounds around us; through hearing we engage with our environment, communicate with others, express our thoughts, and learn about the world around us (**WHO, 2023**). Hearing is a function facilitated by the ear and the entire auditory system. The auditory system is made up of three main areas: the outer, middle and inner ear (Figure 1). The outer ear includes the ear flap, ear canal and eardrum. The middle ear is in an enclosed chamber behind the eardrum and includes the three tiniest bones (ossicles) in the body, often described as the hammer, anvil and stirrup. The inner ear consists of the cochlea, a snail-shaped tube filled with fluid. When sound waves reach the eardrum they cause it to vibrate. These vibrations are amplified by the ossicles and transmitted to the cochlea.

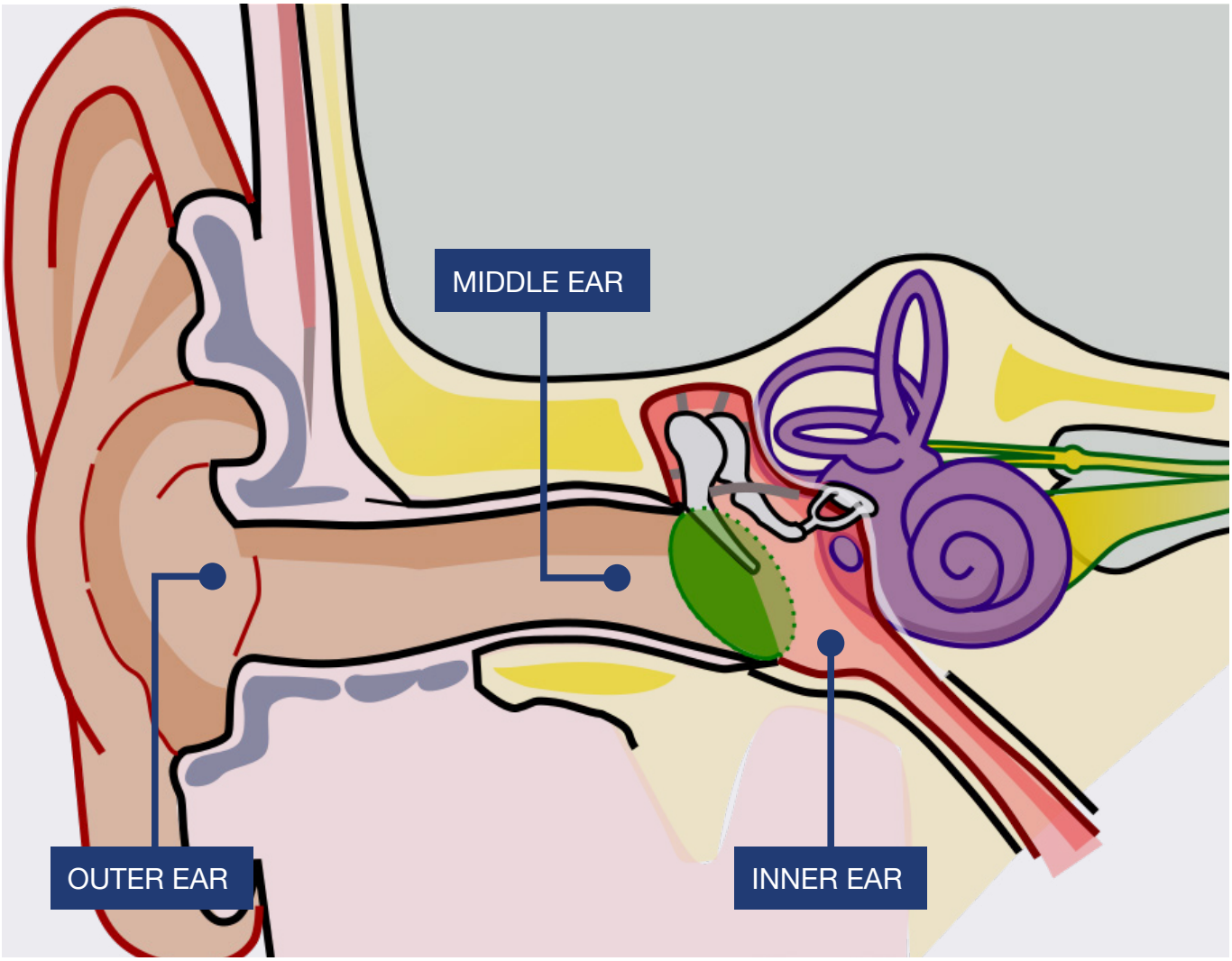

Figure 1: Anatomy of the ear (Adapted from: **Wikimedia Commons**, CC BY)

Watch the video on the journey of sound to the brain to learn more about how the ear structures work to perceive and deliver sound.

WATCH: The journey of sound to the brain

Creator: National Institutes of Health
Date: 2018
Duration: 3 minutes

The auditory system is integral in collecting sound input (speech, music, noise) for processing through the ear structures and comprehension in the brain (Figure 2).

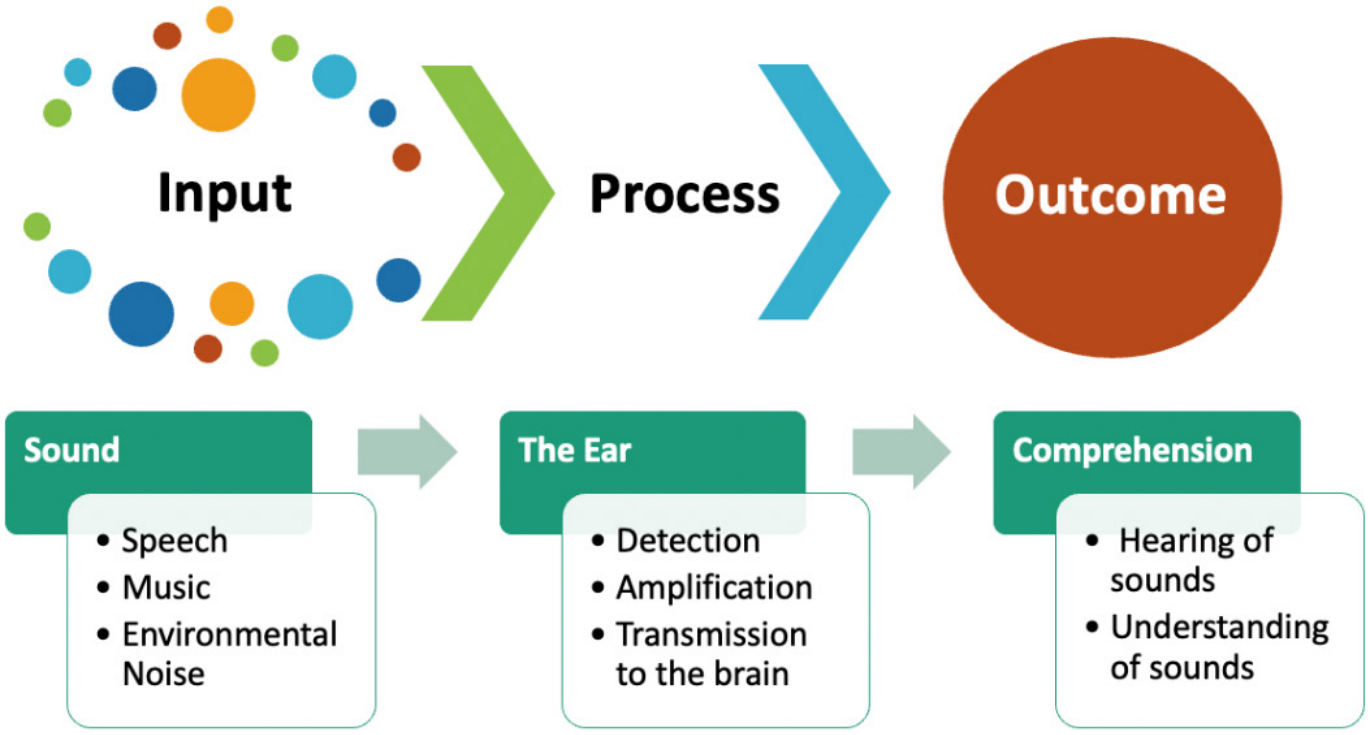

Figure 2: How sound is processed in the ear

What is hearing loss?

Hearing loss is a partial or total inability to hear. In other words, hearing loss occurs when there is a physiological malfunction in the auditory system. Hearing loss is diagnosed by an audiologist using a hearing sensitivity test that measures sounds in decibels (dB) at different pitches (frequencies) per ear to determine hearing function. According to the WHO, being able to hear at 20 dB means one is able to hear leaves rustling, a whisper, birds chirping, etc. A person who is not able to hear at 20 dB or better in both ears is said to have hearing loss. There are various terms used to name or label hearing loss.

GLOSSARY: Audiologist

An audiologist is a health professional qualified to diagnose and rehabilitate hearing conditions as well as work with improving function and quality of life for those living with communication disorders such as hearing loss.

Terminology around hearing loss

After one is tested, there are many terms that can used to "name" one's hearing sensitivity. In this chapter, we use the term "hearing loss". Other terms that have been used throughout the book include "hard of hearing", "hearing impaired" and "deaf". See Figure 3 on the varying terminology used around hearing loss.

Figure 3: Terminologies used in referring to hearing loss

There are varying impacts a term or naming classification can have on the person being diagnosed in terms of stereotyping around disability in general. It is therefore worth noting that the terms used to describe medical diagnosis are used with caution so as not to fuel negative stereotypes, particularly as relates to children. Furthermore, it is worth stating that there is a difference between Deaf and deaf. The term "deaf" with a small "d" refers to the audiological condition of not hearing/hearing loss we have described and can range from mild to profound severity; while the term "Deaf" with a capital "D" refers to a group of people who have hearing loss and identify culturally and linguistically as Deaf. Deaf culture and identity is informed by a set of social beliefs, behaviours, traditions, history, values and shared institutions of communities that are influenced by deafness and use sign languages as the main means of communication.

How is hearing loss determined?: Understanding audiology assessments

The audiologist can, from the hearing sensitivity test, diagnose and classify hearing loss according to type and severity in each ear. An audiogram, which is a diagram used by the audiologist to visually illustrate results of the hearing test, is the clinical record used to document hearing sensitivity.

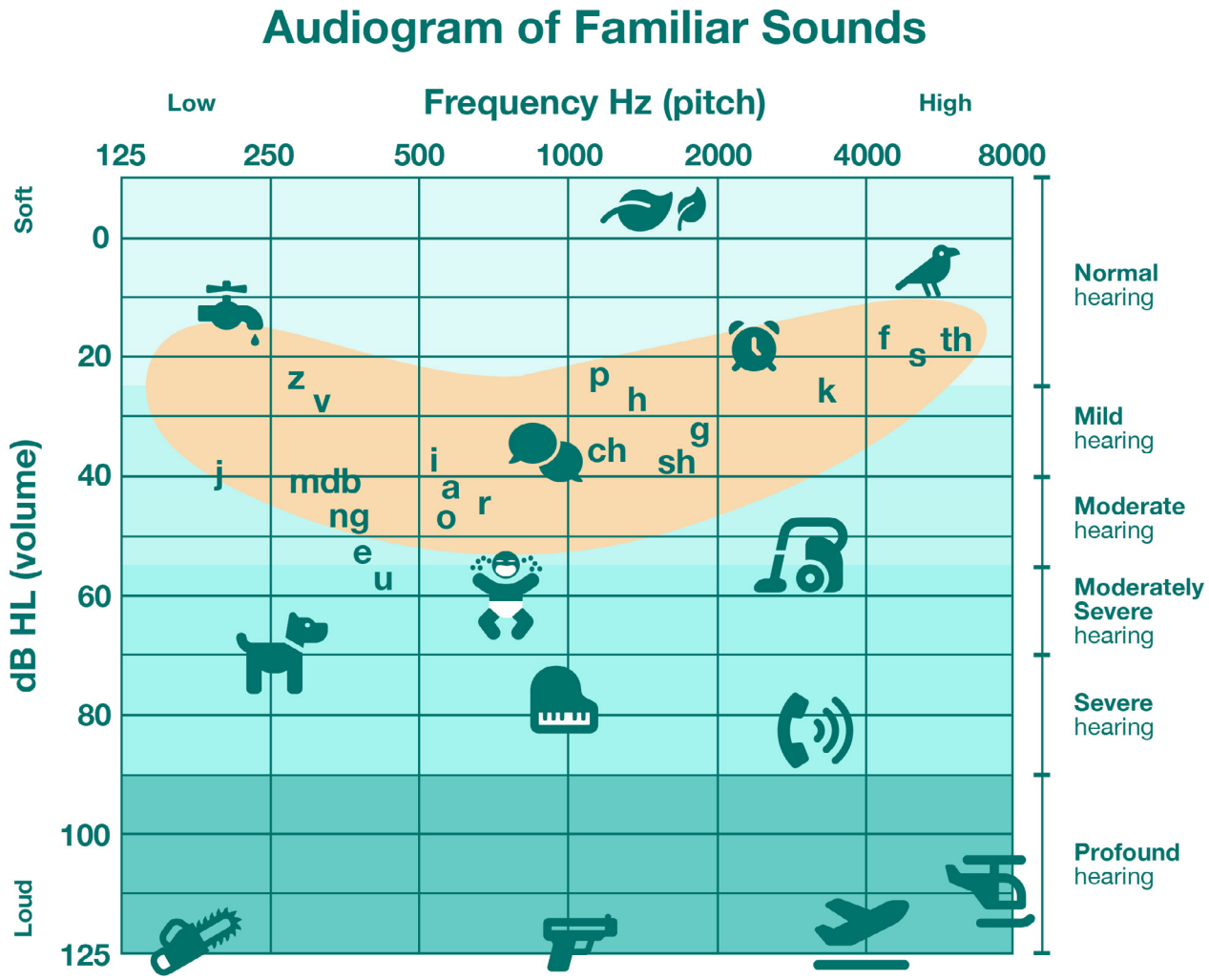

Figure 4: Audiogram showing severity of hearing loss and everyday associated sounds (Adapted from: **Maricopa Community Colleges**)

The audiogram shows the severity of hearing loss based on the hearing sensitivity in dB HL. Hearing loss may be of a mild severity up to profound. This means we associate and name the hearing level of an individual in line with the expected functional impact the hearing loss may have on their listening, hearing and communication. Hearing loss is classified as being clinically disabling by the WHO once it is of a moderate severity or worse.

It is also worth noting that the functional impact of hearing loss is the key factor to describing and contextualising its “disabling” nature outside of the clinical categorisation according to severity on the audiogram. For example, the images of everyday sounds and objects on the audiogram illustrate the kind of sounds that a person with a certain severity of loss may miss such as not being able to hear a helicopter when you have a profound hearing loss. This is important to highlight as the term “disabling” can be loaded with varying implications for interpretation based on use. In this instance, it is used to denote the clinical and or the standard clinical definitions to classify the implied functional impact of hearing loss in everyday life.

Different types of hearing loss

A hearing sensitivity test administered by an audiologist helps determine the type of hearing loss in each ear. Hearing loss types are named and classified according to area thought to be affected in terms of function, as determined by the three parts of the auditory system: the outer, middle or inner ear. There are therefore three types of hearing loss: sensorineural, conductive and mixed.

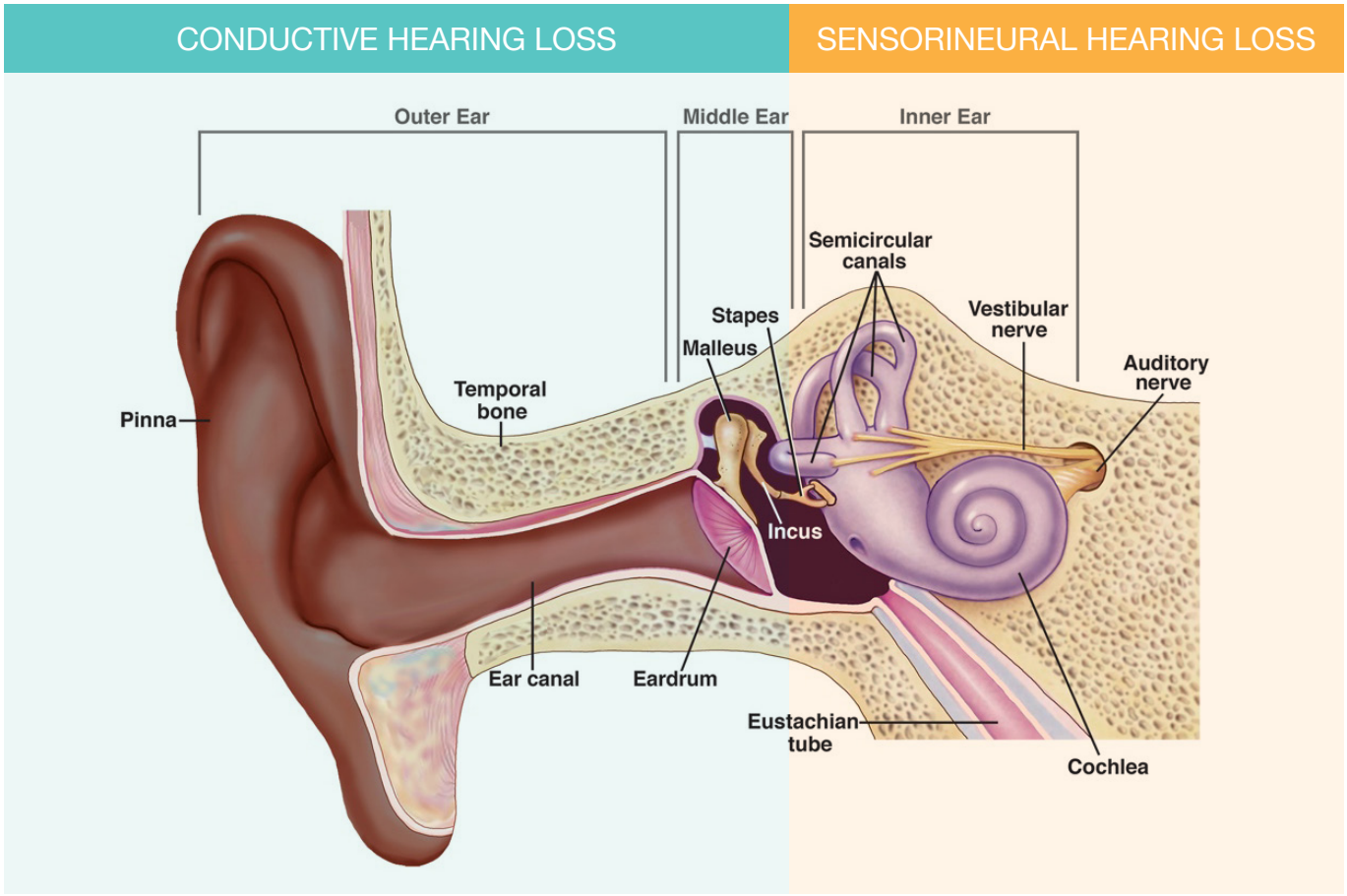

Figure 5: Different types of hearing loss (Adapted from: **National Institute on Deafness and Other Communication Disorders**)

Sensorineural loss is the permanent kind of loss where the sensory or neural hearing organs, most likely in the inner ear, are irreversibly affected. Conductive loss is a temporary but often recurrent kind of loss that occurs when there is a difficulty with the conduction of sound through the middle ear and hearing structures, typically when the middle ear is affected by an ear infection. Conductive losses are the most common in children and are by nature temporary, but can reoccur. Mixed loss is when there is both a sensorineural and conductive component to the hearing loss.

Commonly known causes for hearing loss

Hearing loss can be congenital, meaning one can be born with it, or acquired across one's lifespan after birth. The most common causes of congenital (from birth) or acquired hearing loss according to the WHO are listed in Table 1. This is not an exhaustive list, but it provides a useful guide to the most common causes. Among children, chronic ear infections are the most common cause of hearing loss; while noise and age-related factors are common causes in adults.

Table 1: Common causes for congenital and acquired hearing loss (Source: **WHO, 2023**)

Common causes of congenital hearing loss	Common causes of acquired hearing loss
Maternal rubella	Infectious diseases, including meningitis, measles and mumps
Syphilis	Chronic ear infections
Infections during pregnancy	Use of certain medicines, such as those used in the treatment of neonatal infections like malaria, drug-resistant tuberculosis and cancers
Low infant birth weight	Injury to the head or ear
Birth asphyxia (a lack of oxygen at the time of birth)	Excessive noise
Use of drugs (medical or otherwise) during pregnancy	Ageing (due to degeneration of sensory cells)
Severe jaundice in the neonatal period (which can damage the hearing nerve in a new-born infant)	Wax or foreign bodies blocking the ear canal
Genetic or inherited conditions	N.A.

Symptoms of hearing loss

The video by Hear-it provides an overview of common signs and symptoms of hearing loss in children.

WATCH: Hearing loss in babies and toddlers

Creator: Hear-it
Date: 2018
Duration: 2 minutes

Over and above the common symptoms for hearing loss, disabling hearing loss can also impact the child's developmental milestones, including:

- Speech and language developmental delays.
- Failure to make certain cognitive milestones.
- Negative socio-emotional/behavioural effects.
- Negative scholastic/academic impact.

For adults, or in older children able to express/report on symptoms, some of the commonly reported symptoms include:

- Hearing muffled speech and other sounds.
- Difficulty understanding words, especially against background noise or in a crowd.
- Frequently asking others to speak more slowly, clearly and loudly.
- Needing to turn up the volume of the television or radio.
- Withdrawal from conversations and avoidance of some social settings.

The above listed signs and symptoms are not exhaustive; annual health screening and check-ups are always encouraged to accurately detect the presence of any abnormalities.

Prevalence of hearing loss

Globally, hearing loss is the third leading condition that accounts for years lived with disability (**GBD 2019 Hearing Loss Collaborators, 2021**). In 2021, an estimated 430 million people across the world were living with disabling hearing loss, and of these, 34 million are children (**WHO, 2021**). Most cases of children with disabling severe hearing loss occur in Sub-Saharan Africa, with cases being congenital or early acquired (**WHO, 2021**). Added to this, over one billion young people across the world are at risk of noise induced hearing loss due to unsafe listening practices (**WHO, 2023**).

The relationship between hearing loss and learning in the classroom

Before we unpack the link between learning and hearing loss in the classroom, we need to expand on the link between spoken language development and hearing loss. This is because, much teaching instruction in the classroom is done through spoken language. The relationship between hearing and learning is that we learn from what we hear in spoken language (see Figure 4). So let's look into spoken language development and the impact of hearing loss.

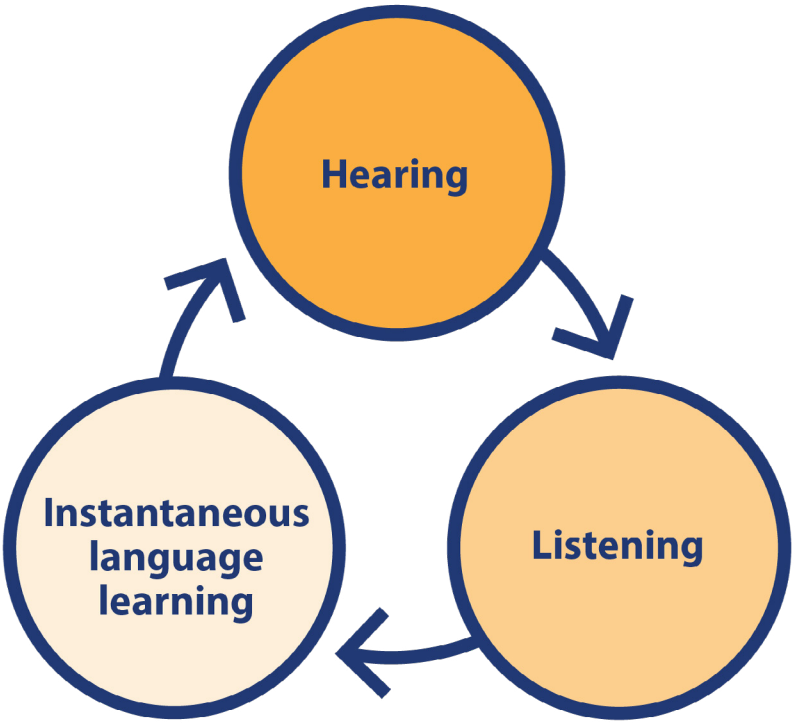

Figure 4: Relationship between hearing and learning

Children learn language through listening exposure (**Pittman, 2008**). This means, (1) we learn to attach meaning (receptive language) to what we hear (speech sounds) and (2) we then learn to say (through expressive language) what we hear. Therefore, sense of hearing is important for both receptive and expressive spoken language development. Hearing gives access to speech sounds that the brain uses through listening and the listening experience is used for learning key auditory skills that facilitate language learning. Thus, the presence of a hearing loss presents as an acoustic obstacle that alters the incoming speech sounds.

A good illustration of how hearing is involved in language development are some of the stories of "wild children" who were raised by animals and thus "spoke" like them. This is an extreme example of how the brain uses what it hears to learn language.

It is important for us to expand a little more on specific areas of language development affected by the presence of hearing loss in order to show the link between hearing loss and learning in the classroom. Please take five minutes and watch this video by The THRASS Institute introducing the concept of phonology and phonemic awareness.

WATCH: Phonemic awareness: What is it? Why is it important?

Creator: The THRASS Institute
Date: 2017
Duration: 5 minutes

Phonology

Phonology is defined as the systematic organisation of sounds in a language and what we call "phonological skills" (the ability to hear, identify and manipulate speech sounds) is the key skill that is affected by hearing loss, which then impedes spoken language development. A good example to illustrate how phonology and learning is used is in how most of us may have learned the alphabet in our early schooling years. This example on how we learnt the alphabet is a quick practical experience to explain phonology and its implications for learning. In Figure 5, the relationship between what we hear (hearing) through the sound of the letters (phonology) can facilitate learning and in turn create the foundation for reading and writing skills (literacy and learning). Phonology is a critical contributor to learning through audition and there are many aspects of phonology, as represented in Figure 6.

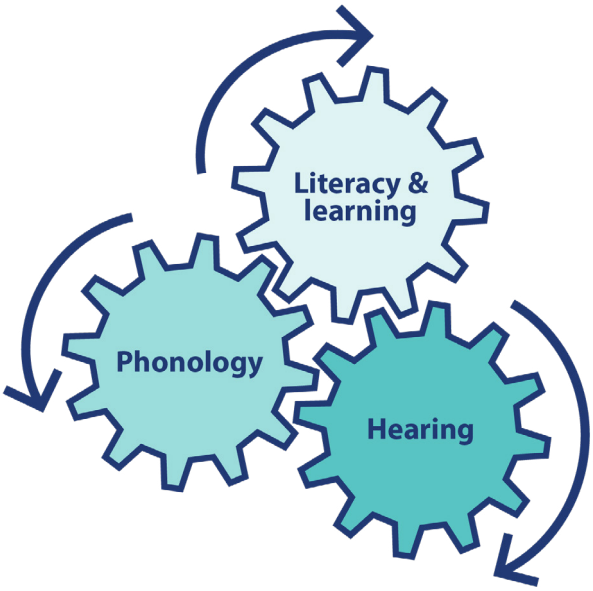

Figure 5: Relationship between hearing, phonology and literacy

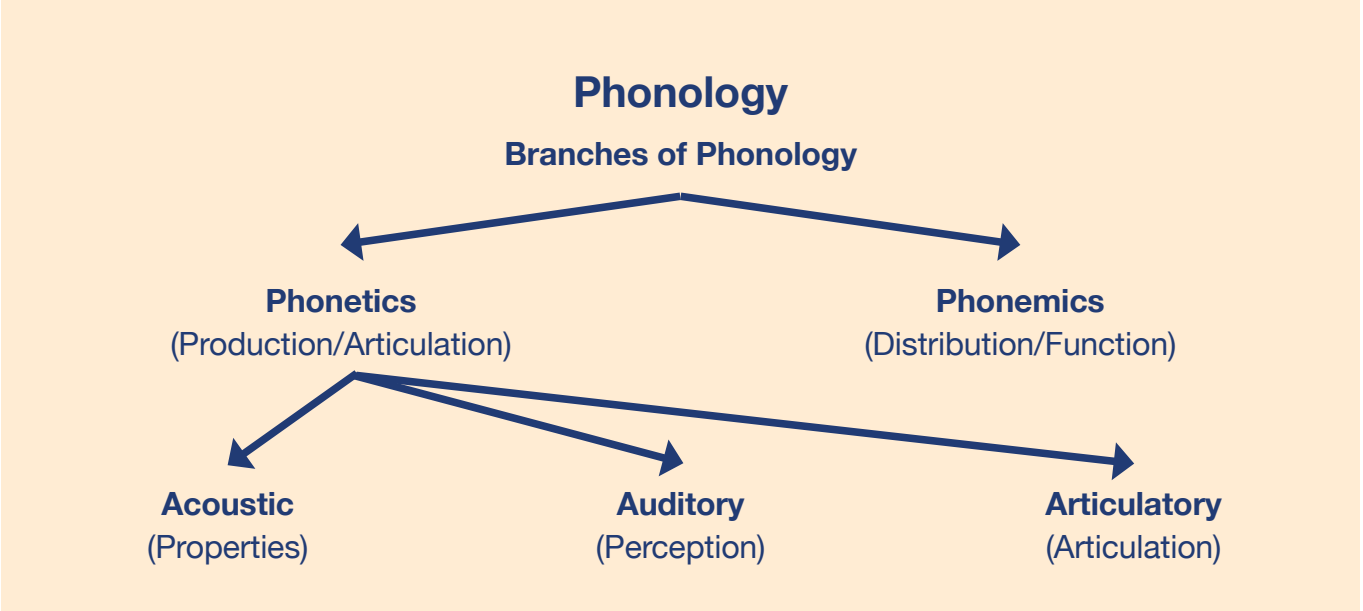

Figure 6: Aspects of phonology

If we look into the classroom learning environment, where, in most cases, the teacher is in front of the class and learners are customarily seated in rows throughout the class, listening. Implied in using spoken language for teaching instruction and literacy acquisition, is the assumption that learners can hear the teacher and have developed the necessary language skills to follow and understand the teacher. Bearing in mind everything discussed above, it is clear that should the child have hearing loss, there is a challenge presented. The first challenge here is the *audibility* of the teacher to the child which may be impaired; secondly, depending on type and severity of loss, the child may have a language development delay. Both challenges may impede learning for the child with hearing loss.

Audibility

With regards to audibility, the quality, loudness and clarity of the teacher's voice to the child, distance between the child and teacher as well as background noise in the class are some of the factors to consider in relation to the child's hearing level. These factors may exacerbate the negative impact of hearing loss on the child's ability to learn. Some simple adaptations that can however be made to improve audibility, including:

- Ensuring the teacher's voice is audible to the child.
- Shortening the distance between the teacher and the child.
- Decreasing or eliminating background noise during teaching time.

Another key aspect to consider is rehabilitation of hearing loss with the aim to improve audibility and thus access to spoken language learning. There are various options for hearing-loss rehabilitation that are undoubtably affected by resource availability as well as other contextual factors, including, most importantly, parents' choice of their child's language of communication. It is important to note that not all parents of hearing-impaired children choose to have their children communicate verbally and learn through spoken language. Thus, only when spoken language is the choice, can matters of using audiological rehabilitation to improve the child's audibility to access spoken language for learning be a factor for consideration. Most commonly, those that choose the spoken language route, are introduced to hearing amplification devices (hearing aids). This is an entire area on its own; for the purposes of this chapter, what is important to note is that hearing amplification devices are an assistive rehabilitative method and success thereof depends on type of hearing loss and many other contextual factors, including continued rehabilitation to assist the child's brain to optimise the sounds accessed through the device.

Language delay

Because spoken language is learned through listening and hearing, most children with hearing loss present with a language development delay. While what is important to note is that although the child with hearing loss may be on par with age-related cognitive and intellectual milestones, they may have a delay in the development of receptive (ability to understand) and expressive (ability to speak) language. This affects how they learn in the classroom, as the ability to understand the language of instruction is an important aspect of learning.

This is critical to note as children with hearing loss are often overlooked and erroneously referred for learning difficulties, intellectual/cognitive delays and various other conditions. These can co-occur, but the presence of hearing loss does not always imply a cognitive or intellectual learning difficulty. What is often an issue that exacerbates learning difficulties is that most children with hearing loss have problems retaining new information and paying attention in class; they also tend to "misbehave" during lessons. Most of these factors are related to the brain missing information and being unstimulated in a classroom set-up when audibility is impaired, and a language barrier exists. Imagine being placed in a classroom where you are expected to learn, but you do not hear nor understand the little you hear because the language is foreign, and you are a child.

Many of these challenges do not have a quick fix and may require the teacher to refer to a speech language therapist to assess language capabilities so that they can adapt their support to the child appropriately. Some of the quicker fixes may include:

- Using repetition during lessons, as this helps with retention.
- Including written notes to augment teaching and the use of visual aids.

Overall, the link between learning in the classroom and hearing loss is layered and can be influenced by many other factors. There are various resources you can consult on this topic to increase your knowledge in this area. One of these is the "**Disability Inclusion in Education: Building Systems of Support**" Massive Open Online Course (MOOC), which explores topics such as "What teachers need to know to be able to support D/deaf and hard of hearing learners" and "Education for learners who are D/deaf or hard of hearing". We particularly recommend that you look through "Effects of severe to profound hearing loss on the D/deaf and hard of hearing child". You can also consult some of the additional reading resources listed at the beginning this chapter. Also, take some time to look into some classroom accommodations for children with hearing loss shown in the article by Anderson and Matkin (**2007**) titled "Relationship of hearing loss to listening and learning needs".

Human rights and policy frameworks for children who are D/deaf or hard of hearing

It is important to delve into human rights and policy frameworks for learners who are D/deaf or hard of hearing. This is a critical content area within the broader field of disability inclusion and inclusive education. Skrebneva (**2015**) identifies key South African policy documents and legislative guides on inclusive education that directly impact learners who are D/deaf or hard of hearing. These policy documents relate directly to the development and implementation of an inclusive educating system which is envisioned to accommodate and enable a conducive learning and developmental environment for learners who are D/deaf or hard of hearing. Some of the South African policy documents and legislative guides include:

- **White Paper on Education and Training in a Democratic South Africa (1995)**
- **The South African Schools Act (1996)**
- **White Paper on an Integrated National Disability Strategy (1997)**
- **Education White Paper 6: Special Needs Education: Building an inclusive education and training system (2001)**

Education White Paper 6 is of particular importance, in that it outlines a framework for establishing an inclusive education and training system, details a funding strategy and lists key strategies to be adopted in establishing the system in South Africa. Skrebneva (**2015**) summarises these strategies as follows:

- Emphasising capacity building at leadership and managerial levels and fostering intersectoral collaboration at all levels.
- Strengthening education support services, with a focus on the conversion of special schools into resource centres and developing support teams at district and institutional levels.

- Expanding access to and provision of education.
- Developing a flexible curriculum, curriculum support, appropriate assessment approaches, appropriate development of materials, and use of assistive devices.
- Launching a national advocacy and information programme in support of inclusion.

White Paper 6 further emphasises that one of the most significant barriers to learning for learners in special and "ordinary" schools is the curriculum (**Skrebneva, 2015**). Some of the barriers to learning include:

- The content (i.e. what is taught).
- The language or medium of instruction.
- How the classroom or lecture is organised and managed.
- The methods and processes used in teaching.
- The pace of teaching and the time available to complete the curriculum.
- The learning materials and equipment that is used.
- How learning is assessed.

The most important way of addressing some of these barriers is to ensure that the process of learning and teaching is flexible enough to accommodate different learning needs and styles according to the learners that are in the system.

Conclusion

This chapter has taken you through key concepts in understanding the sense of hearing and the nature of hearing impairment as a foundation to unpacking the relationship between hearing loss and learning in the classroom and accommodations for learners who are D/deaf or hard of hearing. We also explored the human rights and policy frameworks in inclusive education.

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chapter 15

Disability Studies in Inclusive Education

Curriculum adaptation for children who are D/deaf or hard of hearing

Emma McKinney

Chapter learning outcomes

After completing this chapter, you will be able to:

- Communicate effectively and respectfully with members of the D/deaf community by using appropriate terminology that reflects an understanding of their linguistic conventions, culture, perspectives, values, beliefs and experiences.
- Develop an understanding of teaching strategies and accommodations that promote inclusive learning environments to address D/deaf students' difficulties with auditory processing, speech perception and language development.
- Apply teaching strategies for inclusive learning in their own educational context for learners who are D/deaf or hard of hearing.
- Describe advantages and disadvantages of different approaches to educating children who are D/deaf or hard of hearing.
- Analyse how the principles of Universal Design for Learning (UDL) can be used to create conducive learning environments for learners who are D/deaf or hard of hearing.

Preparatory activities

WATCH: Top 10 tips for teachers of students with hearing loss

Creator: ESC Region 13
Date: 2017
Duration: 3 minutes

While watching this clip, write down the 10 tips mentioned by the speaker. Reflect on your own or previous classroom experiences and select five of the tips that you relate to in your or context. Using bulleted short sentences, jot down why you feel these should or should not be done or used, and what you could do in your environment.

WATCH: Signs for a good education

Creator: Human Rights Watch
Date: 2013
Duration: 6 minutes

Like all other children, children who are D/deaf or hard of hearing have a right to quality education in a language and environment that maximises their potential. In this video, Human Rights Watch show some of the challenges faced by children who are Deaf, and the opportunities sign language offers to overcome these challenges.

Watch the video and jot down the tips the presenter gives on practically accommodating learners with hearing impairments in your classroom.

WATCH: Our school experiences as Deaf children

Creator: Carmen Kuscus & Ntombosindiso Majibana
Date: 2021
Duration: 16 minutes

Introduction

In this chapter, we look at the linguistic and cultural factors relating to hearing impairment, focusing on how each child is unique, and how these factors are not only linked to the degree of hearing loss a child may have. We also look at communication choices and how these are influenced by when the child became D/deaf or hard of hearing. After this, the differences between people who identify as being “Deaf” with a capital “D” and those who call themselves “deaf” or “hard of hearing” will be explored. The social and emotional effects of hearing impairment on learners within the schooling environment is then examined. Information on how hearing impairment affects a child’s ability to learn is shared and practical ideas on accommodations are given.

We then move on to examine strategies teachers can adopt to better meet the needs of children with hearing impairments, including adaptations to the curriculum designed to support more appropriate approaches towards teaching, learning and assessment. It then includes a summary

of Universal Design for Learning (UDL)'s three principles relating to engagement and motivation, representation and action, and expression. Moving on from this, we focus on practical strategies, assistive devices and accommodations that teachers can use to better support the needs of children who are D/deaf or hard of hearing in their classrooms. To conclude, we explore the importance of getting to know the individual strengths and needs of each learner and using this information in your planning, teaching and assessment.

Linguistic and cultural factors relating to hearing impairment

It is important to know that not all children with hearing impairments are the same, and that there are important linguistic (language) and cultural factors that are not always linked to the amount of hearing loss a child may have. Many people also think that children who follow an oral/aural communication approach have more hearing than those who use sign language. This is not always the case; instead, it has to do with communication (signed or spoken) and cultural affiliation (hearing or Deaf) that the parents choose for their children. A big factor influencing the communication choice also relates to when a child lost their hearing (at birth or after birth), as well as parent communication choice. Children who were born hearing and lose their hearing after they have heard speech and can talk, may find an oral/aural approach easier than those who have never heard spoken language. If a child's parents select a cochlear implant or hearing aids, they are more likely to follow an oral/aural approach to communication.

People who identify as being "Deaf" (with a capital "D") use sign language as their primary means of communicating, socialising and identifying with other people who are Deaf. They may have attended a special school for children who are Deaf where sign language was used as the medium for teaching and learning. People who are Deaf are proud to be Deaf, socialise with other people who are Deaf, and identify with shared Deaf experiences and culture. People who are Deaf do not consider themselves as being disabled, but rather as members of a linguistic (using sign language), cultural (part of Deaf community and its culture) minority group. They feel that if hearing people understand and use sign language, and acknowledge Deaf culture, then there are no barriers (**Higgins & Lieberman, 2016**). This is in line with the social model of disability where the environment creates the disabling barriers rather than a person's impairment.

There are other people with hearing impairments who define themselves as being “deaf” (with a small “d”), hearing impaired or hard of hearing. People who are deaf rely on spoken language and lip-reading as their primary means of communication. Children who are deaf or hard of hearing may either attend oral/aural (speaking) special schools where no sign language is used or mainstream schools with hearing children. They may use assistive devices such as cochlear implants or hearing aids to help them with speaking and hearing. Teachers in these schools might use FM systems (wearing a microphone that transmits what they say directly to the child’s hearing aid, etc.) People who are deaf or hard of hearing typically socialise with hearing people within hearing communities and culture/s and would identify as being disabled (**McKinney & Swartz, 2016**).

WATCH: Understanding Deaf culture and community

Creator: Jabaar Mohamed
Date: 2021
Duration: 11 minutes

Social and emotional effects of hearing impairment on learners

For children who identify as being Deaf, schools for the Deaf can be important places for meeting and socialising with other children and Deaf adults who have a shared understanding. This builds their identity as being part of a Deaf community, following Deaf culture norms and communicating through sign language. With over 90% of children who are Deaf being born to hearing families, most of whom have never met a person who is Deaf and are not fluent in sign language, socialising and being educated with other children who are D/deaf or hard of hearing is important in developing their Deaf identity, sense of belonging and confidence. However, not all teachers working in schools for children who are Deaf are fluent in sign language, which can create a barrier. Many children who are D/deaf stay in school hostels and feel isolated and excluded when they return to their families and communities where they do not understand or use sign language (**McKinney & Swartz, 2016**).

Some children who are deaf or hard of hearing attending mainstream schools are bullied and teased by hearing children or teachers. Not all teachers understand the needs and accommodations that children with hearing impairments require, while others are not diagnosed as having a hearing impairment. Some children who are deaf or hard of hearing become disruptive as a result, or withdraw and become isolated, falling behind hearing children.

It is thus important that teachers understand the needs of children with hearing impairments, and what they can do to practically accommodate them in their classes, regardless of whether this takes place in a special school or in a mainstream school.

How hearing impairment affects learning

While some people identify as being culturally and linguistically Deaf and others as deaf or hard of hearing, having a hearing impairment may impact on a child's learning. Children with hearing losses will not be able to pick up general knowledge through hearing what people around them are saying or what is being spoken about on the news, for example. Acquiring spoken language for learners following an oral/aural communication approach may be at a slower pace, and there may be a delay in the development of receptive and expressive communication skills (speech and language) than hearing learners. This means that they have to spend a great deal of effort and energy reading hearing-people's lips, facial expressions and body language to try understand what is being said or communicated. Even children who use sign language can feel tired from having to rely on watching all day, as opposed to hearing children who can hear what the teacher is saying without having to look at their mouth to lip-read.

Learners who communicate in sign language may find challenges with reading and sentence structure. This is because there is no written form of sign language, and they will have to read and write in a spoken language such as English, which has a differing word order to sign language. Many children with hearing impairments do not have the same general and incidental knowledge and language that their hearing peers who can access information from hearing others speak around them have (**Knoors, 2016**; **Marschark et al., 2014**). In addition, many children with hearing impairments in mainstream settings feel isolated and excluded from their hearing peers which can lead to social isolation and poor self-concept.

Teaching and learning may therefore take longer, as teachers need to face children at all times (they cannot write on a blackboard and speak at the same time), students cannot rely on the use of phonics to sound out words when learning to read, and children cannot write and follow what a teacher is saying or signing at the same time. Most children with hearing impairments require additional visual input to supplement what they may be missing because they cannot hear.

WATCH: Making education accessible to deaf children

Creator: Nyle DiMarco
Date: 2018
Duration: 14 minutes

Adapting the curriculum to meet the needs of children with hearing impairments

In order to meet the educational needs of learners who are D/deaf or hard of hearing, we need to ensure that if required, we make adaptations to the curriculum including what we teach, how we teach and assess, as well as the activities we select in our teaching and learning. The curriculum is what is learned and what is taught (context), how it is delivered (teaching-learning method), how it is assessed (for example, assessments), and the resources and materials (such as textbooks and posters) that are used to deliver and support teaching and learning in the classroom (**Perner, 2004**).

We know that all learners are unique and that no two learners learn in the same way. If we follow the principles of UDL, we can better meet the needs of all learners in our classrooms. We also need to make sure that all learners are present (physically attending school), participating (actively learning and participating in all areas of school including class activities as well as extra curricula activities), and achieving (not just in integrated into school but developing, learning and thriving).

As discussed earlier, there are three principles of UDL. These are:

Engagement and motivation (Why are we learning?): We need to ensure that we make learning interesting (through using a variety of different teaching methods, materials and activities especially those that make use of the visual modality), keep their attention, and assist them in regulating their own learning. We want children to be interested and motivated in their own learning. For children with hearing impairments, using more picture-based materials, such as drawings, diagrams and photographs, should be encouraged. We need to give learners options and ensure that the examples we use are relevant to their lives and interests.

Representation (What are we learning?): We need to ensure that once the learners' interests and motivations are piqued, they are ready to learn the content. Learners perceive and comprehend information differently. We therefore need to make the information we give them accessible by using sign language or providing subtitles when sharing videos, so as to support learners' comprehension in a way that is most suitable for them. Other strategies include scaffolding or removing unnecessary distractions not directly related to what they are learning.

Action and expression (How are we learning?): In order for learners to demonstrate what they have learned, we need to support physical interaction with learning materials (such as through the use of physical counters when teaching mathematics in the foundation phase), encourage different means of expression (such as through drama or drawing images), and help learners with "executive" functions (such as comprehension). For example, in order to assess a child's understanding of a concept, you could ask them to draw an image and explain it to you using sign language or by labelling the image.

WATCH: Universal Design for Learning

Creator: Christina Yuknis
Date: 2019
Duration: 38 minutes

WATCH: Deaf and hard of hearing students in the classroom

Creator: Rebecca Fuller
Date: 2015
Duration: 7 minutes

In this video, you will see some practical ideas on how you can support learners in your classroom. Jot down three things that surprised you, three things that were new to you and any strategies that you might use in your classroom.

Strategies that can support students who are D/deaf or hard of hearing

Now that we have looked at how we can adapt the curriculum to meet the needs of children with hearing impairments, we need to look at some strategies that we can use to better support their needs.

No matter what communication method a child uses, there are some strategies that can support children with hearing impairments in the classroom (**Kelly et al., 2022**). This can be done through ensuring that the classroom and school environment do not create barriers. We as teachers also need to differentiate the curriculum content that we teach, adapting the instructional strategies we use as teachers, the instructional materials we select, as well as our assessment practices, making sure these are appropriate and suitable to learners who are D/deaf or hard of hearing to better meet the needs of the learners in our classroom.

READ: Support to address barriers to learning for learners who are deaf

Author: Peter Mapepa & Meahabo D. Magano
Year: 2018
Estimated reading time: 20–30 minutes
File size: 854 KB

Suitable classroom layout and seating arrangements

Children with hearing impairments should ideally be seated in classrooms that are laid out in a horseshoe or semi-circle formation. This will result in children being able to see each other as well as their teacher, which is vital for lip reading as well as following sign language.

Suitable lighting

Having good lighting in a classroom is vital for both lip reading as well as for following sign language conversations. If a child cannot see people's faces or lips, communication is challenging. The source of the light is also important. Light needs to shine on a person's face and not from behind the speaker or signer (this is called silhouetting). Silhouetting means that the speaker's face is not clear, which can hurt the lip reader's eyes and increase their fatigue or result in lack of concentration.

Reduce noise

The sound of scraping chairs when children sit down or stand up as well as banging classroom doors and corridor noises can become very distracting and painful for children with hearing impairments, especially those using assistive devices such as hearing aids that amplify noise. You can buy cheap rubber stoppers to place under chairs, glue small carpet offcuts under desks and chairs, or try to use carpets to absorb sound.

Limit distractions

Children with hearing impairments rely on their vision to access information. As a result, they are very aware of what is happening around them. It is important to limit classroom movement and to close doors where possible because as soon as someone walks past a child with a hearing impairment, they automatically look and will miss out on what the speaker or signer is saying (hearing children can do this easily as they can still hear what the teacher is saying, but children with hearing impairments cannot).

Involve the learner in decisions and choices

Most often, children with hearing impairments (especially older children), will know what works best for them and what they need in the classroom setting. With younger children, ask their parents or caregivers what works for them in their home or outside of school environments. You can also speak to previous teachers and find out what they found helped that child previously.

Encourage interaction with deaf role models

With over 90% of Deaf and hearing-impaired children coming from hearing families, it is important that they meet other people who are successful or that can act as positive role-models. This may be through clubs, societies, sporting events or social events such as through Deaf organisations such as DeafSA or cochlear implant support groups.

Assistive devices and accommodations

Some children with hearing impairments will benefit from assistive devices and accommodations in the classroom and school environment. All children with diagnosed hearing impairments can apply for additional time for assessments and examinations. Some children find writing their examinations or assessments in a separate venue where they are less distracted beneficial; while others are provided with a scribe, note-taker or given the option to complete an “oral” rather than written assessments, depending on what is being assessed (**Kelly et al., 2022**; **McKinney & Swartz, 2022**).

For children who are Deaf, it is vital that teachers are fluent in sign language and understand Deaf culture. If this is not possible because the teacher is new, for example, then it is important that a sign language interpreter is used (**Knoors, 2016**; **McKinney & Swartz, 2016**). It is also important that teachers understand and follow the bilingual bicultural model when teaching children who are Deaf. Here children are taught through sign language as their primary means of communication, with a spoken language such as English being introduced for reading and writing (not for speaking). In addition, children are taught about both Deaf as well as hearing cultures (**Knoors, 2016**; **Marschark et al., 2014**; **McKinney, 2019**).

READ: The effect of limited sign language as barrier to teaching and learning among Deaf learners in South Africa

Author: Winnie Poelane Ngobeni, Joseph Ramathibela Maimane & Mmushetji Petrus Rankhumise
Year: 2020
Estimated reading time: 20–30 minutes
File size: 290 KB

WATCH: Offer deaf children education in sign language

Creator: Human Rights Watch
Date: 2018
Duration: 6 minutes

For children using an oral/aural communication method, having access to technology such as hearing aids, cochlear implants or FM systems is important. However, it is important to note that younger children might need help with testing and charging their assistive devices and cannot swim or play contact sport while using these devices (**Marlatt, 2014**).

Find out what works

All children have differing strengths and needs. The more you get to know the children in your class, understand their interests and difficulties, the better prepared you can be – and the more able to meet their learning needs. See what assistive devices, reasonable accommodations, materials, equipment and resources you can use to enhance their learning.

However, it is also vital that we as teachers assist learners who are D/deaf or hard of hearing with their personal and social development as well as their academic development. This would include areas such as identity and personality, social integration and social skills, social status and roles, emotional development, self-esteem and self-confidence, self-efficacy, and, lastly, love and belonging (**Skrebneva, 2015**). Adults who are Deaf or deaf can act as positive role models for learners who are D/deaf or hard of hearing and can be useful resources to teachers as they have experienced the challenges facing learners first hand and may be able to offer recommendations on classroom adaptations.

Conclusion

In this chapter, we have demonstrated that children who are D/deaf or hard of hearing are unique and have a right to quality education in a language and environment that maximises their potential. There are many linguistic and cultural factors that influence the lives and the learning process of children who are D/deaf or hard of hearing, may have social and emotional effects on learners within the schooling environment.

While hearing impairment may affect a child's ability to learn, there are many techniques and practical accommodations that teachers can use to help children in their classrooms. It is, however, crucial that teachers get to know the individual strengths and needs of each learner and use this information in their planning, teaching and assessment.

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section F

Disability Studies in Inclusive Education

Visual impairment

chapter 16

Disability Studies in Inclusive Education

Overview: Visual impairment

Kofi Nseibo

Section learning outcomes

After completing this section, you will be able to:

- Describe important eye conditions that lead to visual impairment and how these present.
- Examine the effect of low vision or blindness on visually impaired children in the classroom.
- Identify barriers to learning experienced by learners who are blind or have low vision.
- Apply teaching strategies for inclusive learning in their own educational context for learners who are blind or have low vision.
- Analyse how the principles of Universal Design for Learning (UDL) can be used to create conducive learning environments for learners who are blind or have low vision.
- Explain the importance of the Expanded Core Curriculum (ECC) to learners with visual impairments.
- Describe a range of assistive technology devices for learners with visual impairments.
- Explain the importance of human rights and legal issues for learners who are blind or have low vision.
- Reflect on the experiences and psycho-emotional issues in the lives of learners with visual impairments and their families in an empathetic way.

Introduction

In this section, we continue to discuss the impact of different types of impairments, with a focus on visual impairment. We discuss the important eye conditions that lead to visual impairments and how they present. We then examine the effects of low vision or blindness on visually impaired children in the classroom. Further, we discuss barriers to learning experienced by learners who are blind or have low vision. In trying to address these barriers, we discuss how to use teaching strategies and the UDL approach as a tool to create conducive learning environments for learners who are blind or have low vision. The importance of human rights and legal issues for learners who are blind or have low vision is discussed. We also look at a life story of a student who is blind from an education perspective and reflect on the experiences and psycho-emotional issues in the lives of learners with visual impairments.

As the title of this section suggests, this textbook places disability experiences at the heart of our discussion. What does it mean to have a learner who is visually impaired? What does it mean to have a child or family member who is blind? What does it mean to teach a child with low vision or total blindness? Disability experience is not only about people with disabilities, but also about how disability is seen in society and in schools. Is it something to be pitied or to be fixed; or is it about having an impairment that requires an accommodation and adaptations in the environment? Let us begin this section by reading about the educational experiences of Benedict Leteane.

Insider view: Perspectives on education

The phrase "Lesendi kamogare" is a Setswana phrase meaning "the light within". This phrase describes Benedict Leteane's educational life story as a person with total blindness. This is his story:

I was born into a world of shadows, a world that others navigated effortlessly through sight while I struggled to perceive even a glimmer of light. My name is Benedict and I carried with me a rare condition called congenital glaucoma, a cruel twist of fate that took my sight away at the tender age of 13. But this is not a tale of darkness; it's a story of how the light within me burned brighter than any obstacle I faced.

My parents were caught off guard by my condition, discovering it only later in my life. The challenges that awaited me were daunting, yet I was determined not to let my blindness define my journey. I grew up facing countless hurdles, stumbling over a world seemingly designed for those blessed with sight. But in the depths of that darkness, I found my resilience.

Adapting to a world without sight was an uphill battle, but with each challenge I grew stronger. I developed a resolve that refused to be confined by my visual impairment. My parents understood the importance of education, enrolling me in special school in Thabantsho (more than 200km from home) that catered to the needs of the visually impaired. In those halls of learning, I found my sanctuary, a place where my thirst for knowledge was met with understanding and support. I am not at all glamourising special schools. The fact that my parents sent me to a school for the blind meant that I am a different child, that I did not belong with other children besides those who are like me.

Education became my lifeline. Within those walls, I not only learned about the world but also discovered my own potential. My parents, recognising the brilliance that lay within me, transformed into advocates for awareness of visual impairment. They stood by my side, unwavering pillars of strength, reminding me that my condition was only a chapter in my story,

not the entire narrative. The school had couple of challenges, such as braille books arriving late from the publishers. Most of our educators could not read braille. As a result, we used typewriters to write essays, tests and exams so that our educators could read and mark our work. Sadly, due to the educators' lack of knowledge and skills in teaching science, technology, engineering and mathematics, we were limited in subject choices.

With the unwavering support of my parents, I pursued higher education at the esteemed University of Western Cape in South Africa. The challenges were immense, but I refused to waver. I call the challenges I faced "pedagogical exclusion". That is, most lecturers were not aware of my needs as a person with a visual impairment. I was often told "We don't know how to teach you." I remember asking a friend to help me understand psychology statistics because my lecturer had no idea how to teach me as a blind student. Furthermore, there was a constant fight between my peers and I on one side and our lecturers on the other about extension of time for exercises, assignments and exams. Also, I had to wait couple of weeks before I could receive materials in the correct format. It was here that I embarked on a groundbreaking journey, one that would see me become a pioneer in the realm of learning design.

As I delved deeper into my studies, my passion for inclusive education, Universal Design and accessible learning materials blossomed. I recognised that technology held the key to dismantling the barriers that kept individuals like me from thriving. Fuelled by my own experiences, I channelled my creativity into designing innovative solutions that would bridge the gap between sighted and visually impaired learners.

My efforts caught the attention of the University of Cape Town. They saw my potential and offered me a unique role – the first blind learning designer dedicated to enhancing accessibility and inclusivity within the institution. With humility and gratitude, I accepted the challenge. I collaborated with faculty members, sharing insights and expertise to create adaptive learning materials that benefited learners of all abilities.

My journey didn't just impact my career; it transformed my entire life. My story, once a tale of adversity, became a source of inspiration for educators, designers and policy-makers worldwide. I was invited to share my experiences at conferences, seminars and workshops, sparking conversations about the importance of inclusive education and accessible learning environments.

Through it all, my parents stood by me, witnessing the remarkable transformation that my glaucoma had set in motion. What had seemed like a curse had ignited an unquenchable fire within me. Today, I continue to blaze a trail as the first blind learning designer in the world, illuminating the path for visually impaired learners. My journey is a testament to the human spirit's resilience and the boundless potential that resides within us all.

My story serves as a reminder that even in the darkest of times, the light of knowledge can shine brilliantly. I am Benedict, a beacon of hope, a testament to the fact that our challenges need not define us. With unwavering determination, we can all find the light within and let it guide us to remarkable heights.

REFLECTION

Estimated time: 10 minutes

Reflect on Benedict's story and think about your earliest experience of disability. When did you first become aware that there were people in your community or school who were disabled? How did you respond and what were you taught about this at the time?

chapter 17

Disability Studies in Inclusive Education

The nature of visual impairment and its impact on learning

Kofi Nseibo

Chapter learning outcomes

After completing this chapter, you will be able to:

- Understand the nature of visual impairment.
- Describe eye conditions that lead to visual impairment and how these present.
- Examine the effect of low vision or blindness on children in the classroom.
- Identify barriers to learning experienced by learners who are blind or have low vision.
- Explain the importance of human rights and legal issues for learners who are blind or have low vision.

Preparatory activities

READ: Developing the best education for your child with blindness or visual impairment

Author: Perkins School for the Blind
Year: 2016
Estimated reading time: 1 hour
File size: 8.7 MB

READ: The value of the orientation and mobility profession in the lives of learners and teachers

Author: Ann Heard
Year: 2020
Estimated reading time: 1 hour
File size: 8.2 MB

ACTIVITY

Estimated time: 25 minutes

1. In your own words, explain your understanding of the nature of visual impairment.
2. How would you classify visual impairment in relation to visual acuity?
3. List at least 10 ways in which you can identify a learner with visual impairment in your inclusive classroom.

Introduction

> "Your success and happiness lies in you. Resolve to keep happy, and your joy and you shall form an invincible host against difficulties." – Helen Keller

It is estimated that at least 2.2 billion people around the world have a vision impairment, of whom at least 1 billion have a vision impairment that could have been prevented or is yet to be addressed (**World Health Organization [WHO], 2019**). In South Africa, there is no current evidence of the prevalence of vision loss in the general population and its associated factors (**Addo et al., 2021**). The only available data about the prevalence of vision impairment in South Africa was the 2011 population census which estimated a disabled population of 7.5% (**Addo et al., 2021**). The census describes disabilities in levels of difficulty across six proficiency areas: seeing, hearing, communicating, remembering, or concentrating, walking and self-care. According to this data, about 1.7% of South Africans (approximately 1 million people) experience severe visual difficulty.

South Africa currently has 22 special schools for the blind across the country, but the report by Fish-Hodgson and Khumalo (**2015**) revealed that these schools have inadequate resources and the standard of education offered to visually impaired learners is low. As a result, entrance into tertiary education is low (**Botha, 2021**).

In this chapter, we discuss the nature of visual impairment, important eye conditions that lead to it and how these present. We also examine the effects of low vision or blindness on visually impaired children in the classroom. We then identify barriers to learning experienced by learners who are blind or have low vision. Finally, we will look at the importance of human rights and legal issues for learners who are blind or have low vision and how their rights can be promoted.

The nature of visual impairment

In this section, we will unpack the nature of visual impairment in terms of the definition, classification, and the anatomy of the human eye. Visual impairment, also known as vision impairment or vision loss, is a decreased ability to see to a degree that causes problems not fixable by usual means, such as glasses. Visual impairment is also described as visual acuity ranging between 20/70 and 20/400 or having a visual field of 20 degrees or less. Some definitions include those who have a decreased ability to see because they do not have access to glasses or contact lenses. The term "blindness" is used for complete or nearly complete vision loss. Visual impairment may cause people difficulties with normal daily activities such as reading, socialising and walking (**WHO, 2023**).

Clinical testing of visual impairment

In the clinical measurement of visual impairment, both feet and metres can be used, depending on the country. When 20/20 is used as the recorded visual acuity (central vision), it means that the distance from a person to an object is measured in feet. The 6/6 indication is used when recording clinical visual acuity in metres. This means that 6/6 (used in countries that have the metric system) implies the same measurement as 20/20 (used in countries such as the US and other countries still using the imperial system).

In the next section, we discuss the anatomy of the human eye in relation to visual impairment.

Classification of visual impairment

The WHO (**2023**) uses the following classification of visual impairment, which maps visual acuity to a proportionate score as a means of identifying levels of visual acuity.

A child's experience of visual impairment varies and is dependent on many different factors. This includes, for example, the availability of prevention and treatment interventions, access to vision rehabilitation (including assistive products such as glasses or white canes), and whether the child experiences problems with inaccessible buildings, transport and learning materials. Visual impairment changes how a child understands and functions in the world and it can affect a child's cognitive, emotional, neurological and physical development by limiting the range of experiences and the kinds of information a child is exposed to (**McDowell, 2020**). Knowledge about the classification of visual impairment will help you to understand how a child with visual impairment learns and what accommodation and adaptations such a child will need (see **Chapter 18**). The WHO (**2019**) further gives classification according to clinical testing of vision (see Table 1).

Table 1: WHO clinical classification of vision loss

Type of vision impairment	Severity	Description
Distance vision impairment	Mild	Presenting with visual acuity worse than 6/12
	Moderate	Presenting with visual acuity worse than 6/18
	Severe	Presenting with visual acuity worse than 6/60
	Blindness	Presenting with visual acuity worse than 3/60
Near vision impairment	N.A.	Presenting with near visual acuity worse than N6 with existing correction

Note that N6, referred to in the last row of the table, is one level below normal newspaper print.

How we see: The anatomy of human eye

When light falls on the retina (the back of the eye), photoreceptors turn the light into electrical signals. These signals travel from the retina, through the optic nerve to the brain. The brain turns the signals into the images we see. Figure 1 shows the anatomy of the human eye.

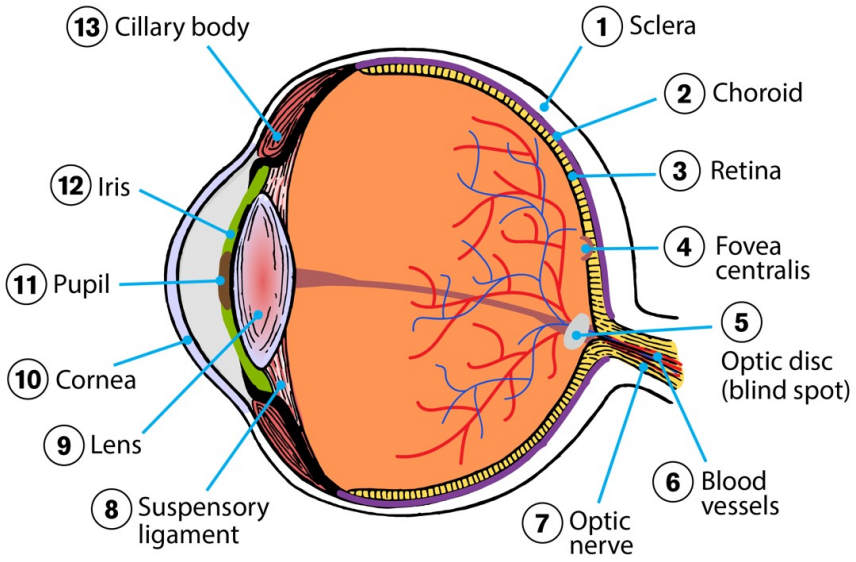

Figure 1: Anatomy of the human eye (Adapted from: **Open Clipart**, CC 0)

The numbering in Figure 1 maps to the following components of the eye:

1. **Sclera:** The white part of the eye composed of fibrous tissue that protects the inner workings of the eye.

2. **Choroid:** The pigmented vascular layer of the eyeball that contains connective tissue and lies between the retina and the sclera.

3. **Retina:** The membrane at the back of the eye that changes light into nerve signals. The retina has two sub-components that relate to how light is being processed by the retina. They are: rods and cones, special cells used by the retina to process light; and macula, a small and highly sensitive part of the retina responsible for central vision, which allows a person to see shapes, colours and details clearly and sharply.

4. **Fovea centralis:** A tiny spot in the centre of the retina that contains only cone cells and enables us to see things sharply.

5. **Optic disc (blind spot):** The raised disc on the retina at the point of entry of the optic nerve, lacking visual receptors and so creating a blind spot.

6. **Blood vessels:** Tubular structure carrying blood through the tissues and organs (a vein, artery or capillary).

7. **Optic nerve:** Bundle of nerve fibers that carries messages from the eyes to the brain.

8. **Suspensory ligament:** Ringlike fibrous membrane connecting the ciliary body and the lens of the eye and holding the lens in place.

9. **Lens:** Located directly behind the pupil, it focuses light rays onto the retina.

10. **Cornea:** Transparent tissue covering the front of the eye that lets light travel through.

11. **Pupil:** An opening in the centre of the iris that changes size to control how much light is entering the eye.

12. **Iris:** A ring of muscles in the coloured part of the eye that controls the size of the pupil.

13. **Ciliary body:** The part of the eye that connects the iris to the choroid. It consists of the ciliary muscle (which alters the curvature of the lens), a series of radial ciliary processes (from which the lens is suspended by ligaments), and the ciliary ring (which adjoins the choroid).

How we see (which can be categorised as normal, near-sighted or far-sighted) is determined by where light focuses in the eye.

Normal vision consists of clear central vision and full peripheral (side) vision. For that to happen, light must focus exactly on the retina and all the structures in the eye must be healthy. If the light does not fall exactly on the retina, a person is said to be **far (long) sighted** or **near (short) sighted**. These conditions can be corrected by wearing glasses or contact lenses.

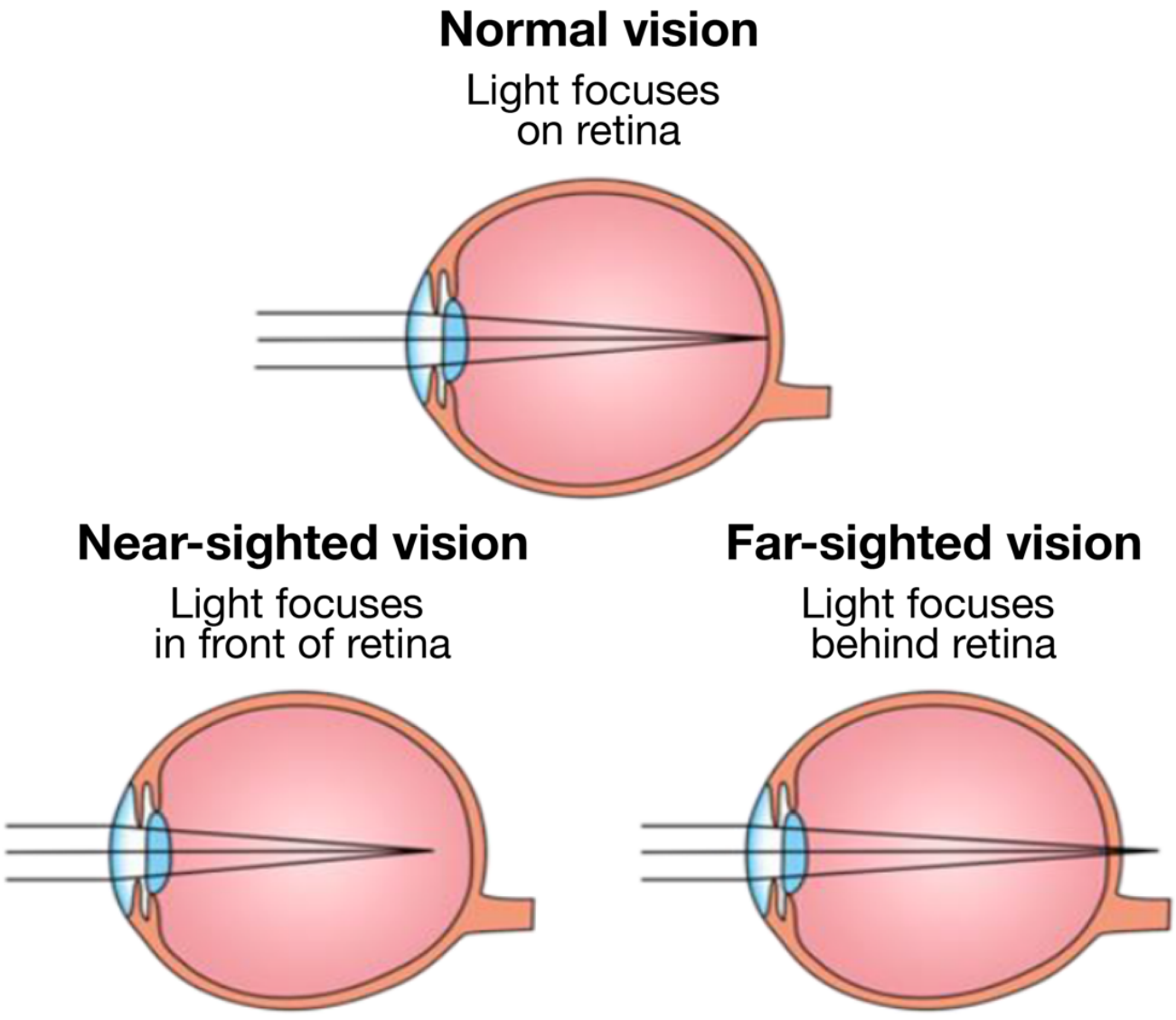

Figure 2: Illustration of where light focuses on the retina in normal, near-sighted and far-sighted vision (Adapted from: **McClain**, CC BY)

We can also differentiate between low vision, central vision and peripheral vision in terms of the way we see objects.

Low vision is when there is significant loss of central vision (visual acuity) or peripheral vision (field), or both, that cannot be fully corrected with glasses, contact lenses, medication or surgery. This loss of vision can be due to injury or disease. Low vision requires significant adjustments to daily life. However, there are specialised low-vision aids that can help maximise remaining vision and increase independence and quality of life.

Central vision is used for activities such as reading, writing, recognising people and things, watching TV and driving – in other words, for all tasks where we need to see detail. Central vision emanates from a very small area on the central retina called the macula. If this area is damaged, it can cause central vision to become blurred and dull. Eventually, it may lead to dark patches (blind spots) in the field of vision.

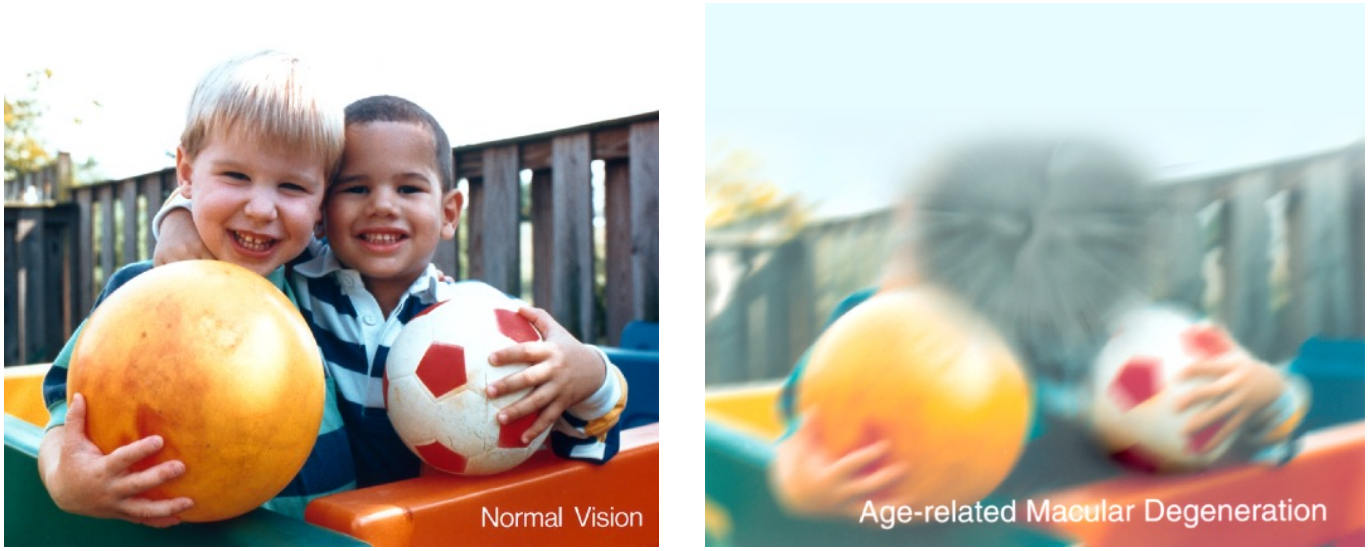

Figure 3: Images showing the deterioration in eyesight that can occur with central vision loss (Source: **National Eye Institute** and **NIH Media Library**)

Peripheral vision is our side vision. Although we are generally focused on what is in the centre of our field of vision, we have another, peripheral field of vision around this. People are often less aware of the importance of peripheral vision. It is not something that we actively use, but it plays a significant role in gathering spatial information. It also helps us to orientate ourselves and is critically important when moving around (see Figure 4).

Figure 4: Images showing clear peripheral vision on the left and deterioration on the right (Adapted from: **National Cancer Institute**)

ACTIVITY

Estimated time: 20 minutes

See What I See: Virtual reality eye disease experience

App name: NEI VR: See What I See
Creator: National Eye Institute
App size: 389.6 MB

Download the free **NEI VR: See What I See** app onto your smartphone. The app allows you to simulate the experience of having various eye diseases: age-related macular degeneration (AMD), glaucoma, cataracts and diabetic retinopathy. There are also quizzes to test your knowledge of these four eye diseases. Try out the different eye disease simulations and explore the quizzes on the app. Reflect on your experiences of the different simulations. What did you learn? How can you apply what you have learnt to positively impact the education of blind and visually impaired people?

Eye conditions that can lead to visual impairment and how they present

There are several conditions that may result in visual impairment. For example, poor visual acuity, field loss, ocular-motor problems, colour vision loss and functional disorders. It is important to understand the different eye conditions associated with vision loss and how they present.

Table 2 provides an overview of conditions that can affect central or peripheral vision.

Table 2: Conditions affecting central or peripheral vision

Eye condition	Description
Albinism	The underdevelopment of the central retina, together with nystagmus (involuntary eye movements), can cause poor vision. Reduced colouring of the iris and retina causes increased sensitivity to light.
Macular degeneration	AMD is the most well-known macular degenerative disease. Stargardt disease is a form of macular degeneration found in young people, which is caused by a recessive gene. In all of these instances, the macula, which is responsible for clear, detailed central vision, starts to deteriorate.
Cataract	A cataract is clouding of the lens. Cataracts usually develop later in life and are treatable. If a young child has cataracts, the retina is deprived of light stimuli and the eye can become amblyopic (lazy) if the cataract is not removed.
Glaucoma	This is a common eye condition that damages the optic nerve. It is often caused by abnormally high pressure in the eye. Glaucoma affects peripheral vision and, if left untreated, can end up as tunnel vision (where there is no peripheral vision).
Diabetic retinopathy	This is caused by damage to the blood vessels in the retina. Poorly controlled blood sugar is a risk factor. Early symptoms include floaters, blurriness, dark areas of vision and difficulty perceiving colour. Blindness can occur. Mild cases may be treated through diabetes management. Advanced cases may require laser treatment or surgery.
Retinitis pigmentosa	Retinitis pigmentosa is an inherited retinal disease that causes progressive loss of night and peripheral vision.

Eye condition	Description
Retinopathy of prematurity	This is a potentially blinding disease caused by the abnormal development of retinal blood vessels in premature infants.
Retinal detachment	The retina pulls away from a layer of blood vessels that provide necessary oxygen and nourishment, often after an injury. It can also result from ageing and high myopia. Symptoms include the appearance of bits of debris (floaters), experiencing sudden flashes of light or a shadow in the vision field. Prompt medical treatment can often save vision in the eye.

Barriers to learning experienced by learners who are blind or have low vision

Teachers encounter several challenges in meeting the needs of children who are blind or have low vision and the heterogeneous nature of visual impairment makes it difficult for most teachers to plan for these learners according to their academic needs (**Agesa, 2014**). Also, learning barriers can be caused by various factors. Some are purely external: tight schedules, too much work, lack of available materials or technologies, and so forth. Others are internal and originate in people's pre-existing experiences, emotions or mindsets. Sometimes internal and external factors join forces.

Visual fatigue relates to tiredness and associated behaviours. Vision-impaired students have to work harder to keep up and the extra work can be taxing. Where quiet spaces and rooms for self-managed breaks are provided, these can assist visually impaired students to remain engaged.

The wider environment that learners with visual impairments are subjected to contributes to their visual fatigue and disengagement. Some examples of environmental barriers include:

- School classrooms, playgrounds and outdoor areas that are too noisy, too bright, too overwhelming or physically difficult to access.
- Work material not provided in the learner's preferred alternate format.
- Rigid adherence to teaching pedagogy resulting in refusal to provide support (such as a specific table and chairs) for a visually impaired learner and unwillingness to incorporate the learner's needs into the teaching and learning period.
- Assistive technology taking weeks (and sometimes months!) to arrive or be repaired.
- Difficulty in locating toilets and washrooms and navigating the school environment.
- Transport options that arrive late or leave early, or that eat into the learner's school time.

These types of occurrences communicate a lack of a welcoming environment for the learner with visual impairment in the school. Parents may interpret these types of barriers as a lack of care and concern for their visually impaired children and their learning.

The impact of visual impairment on learning

The impact of visual impairment on learning will vary significantly according to the nature and extent of vision loss: some learners will have been born without vision, others will have lost it gradually; some will have no vision at all, others will have some vision, be light-sensitive, or have limited peripheral vision. It is also possible that vision and light sensitivity will fluctuate on a day-to-day basis. The learning processes of learners with visual impairment may be affected in the following ways:

- Learners with visual impairment may access information in different ways. This could be through braille, audiotape or enlarged print. Braille readers cannot skim read and may take up to three times as long as other learners to read a text. Learners with some vision may be large-print readers. Many will be unable to read examination questions and handouts in standard print or read their own handwriting when answering examination questions. They may also be unable to take their own notes. Scribes or extra time is needed to carry out some tasks, such as locating words in a text when shifting from one reading medium to another.
- Learners who need information put into alternative formats in low-and-middle income countries must often wait lengthy periods of time for the material to be produced for them. This means that they will often fall behind other learners in the class who have no vision loss.
- Learners with visual impairment may feel isolated in the learning environment, which can have an impact on their learning.

Headaches often result from eye strain. This may reduce considerably the study time available to these learners. Participation and interaction in tutorials may be limited. It is difficult for learners who cannot see the body language and interactions of others to feel comfortable about participating. Judging when it is appropriate to interrupt or to take a turn in discussion is particularly difficult.

How do we identify learners with visual impairments in the classroom?

It is important to note that there could be challenges or problems with reading, even in the absence of visual impairment. There may, for instance, be reading difficulties associated with perceptual issues.

The following observations might indicate the need to investigate a learner's vision further:

- Holds a book very close to the eye (10–20 cm away).
- Holds head at an extreme angle to the book when reading.
- Struggles to read ordinary print.
- Cannot see writing on the board.
- Covers one eye when reading.
- Squints when doing near-vision work.
- Constant poor posture when working; slouching down over book.
- Moves head back and forth while reading instead of moving only the eyes.
- Poor attention span, drowsiness after prolonged periods of work in which they need to focus on something more than an arm's length away.
- Homework requiring reading takes longer than it should.
- Occasionally or persistently reports seeing double while reading or writing.
- Loses place when moving gaze from desk work to writing board, or when copying from text to workbook.
- Reports blurring or doubling.
- Must use a marker to keep their place when reading.
- Inability to stick to writing within ruled lines, irregular letter or word spacing.
- Reverses letters (b for d) or words (saw for was).
- Difficulty drawing graphs and diagrams.
- Does not complete tasks in the same time as other learners.
- Shows light sensitivity or needs more light.
- Has spelling problems.
- Confuses colours.
- Shows difficulty sequencing ideas in a logical order.

The following observations related to learners' inability to recognise letters or words may also be prompts for further investigation:

- Re-reads or skips words or lines unknowingly.
- Fails to recognise the same word in the next sentence.

- Misaligns digits in columns of numbers.
- Has headaches after reading or near-vision work.
- Burning or itching eyes after doing near-vision work.
- Blinks excessively when doing near-vision work, but not otherwise.
- Rubs eyes during or after short periods of reading.
- Fails to visualise (can't describe what they were reading about).
- Struggles with notetaking during a lesson.
- Difficulty organising notes, study materials and time.

After teachers identify these barriers, and refer when necessary, they will need to find ways to adapt and accommodate learners with visual impairments in an inclusive classroom. In the **next chapter**, we will discuss classroom adaptation and accommodation to make learning more friendly for all learners. We now discuss the importance of human rights and legal issues for learners with visual impairments.

The importance of human rights and legal issues for learners who are blind or have low vision

The importance of human rights in the educational journey of learners with visual impairments cannot be overlooked. We must acknowledge that all human beings have the right to be treated with respect and dignity. Therefore, all learners have this right, too. By implication, all learners have a right to quality education and are entitled to opportunities which will promote their dignity and holistic development (**UNESCO, 1994**).

According to the report *Left in the dark: Failure to provide access to quality education to blind and partially sighted learners in South Africa* by Fish-Hodgson and Khumalo (**2015**), educational facilities catering to visually impaired learners in South Africa are in crisis. The interviews performed with all 22 schools catering to visually impaired individuals in South Africa reveal a narrative of disregard and refusal to acknowledge the basic educational rights and equality of visually impaired children. This situation ultimately results in a significant infringement on their inherent human dignity.

The Department of Education's **Education White Paper 6: Special Needs Education (2001)** demonstrates a national commitment to granting equal educational opportunities to students with disabilities who have been marginalised by inadequate education provision. W*hite Paper 6* is focused on developing inclusiveness in the training and education system. Teachers have an explicit function and responsibility to support and enable this drive towards inclusion and they may, arguably, be the most important facilitators (or barriers) to inclusion, as they are able to

either implement or stymie inclusive educational policies and practices (**Bornman, 2020**). The performance of learners with visual impairment is significantly influenced by the accessibility of learning and teaching support materials (LTSM), as well as the effectiveness of assessment methods. The violation of learners' human right to equal access to excellent education occurs when they are not provided with equitable access to the curriculum, which includes LTSM and assessment components (**Viljoen, 2020**). Ensuring the safety and security of learners who have visual impairment encompasses various aspects, such as physical well-being, emotional support, gender equality, healthcare provision, social protection and the protection of individual human rights.

Conclusion

Our eyes and the way we visualise things stir our curiosity, invite us to explore and engage with people, objects and activities, and allow us to orientate and navigate the world around us. Vision is therefore acknowledged as one of the primary senses for learning. How can we make life easier for or support learners with visual impairments? Teachers, parents, learners, education officials and all stakeholders have a role to play. In this chapter, we discussed the nature of visual impairment, conditions that lead to visual impairment, effects of visual impairment, barriers to learning and the human rights that should be enjoyed by all. Learners with visual impairments are able to learn equally alongside their non-disabled counterparts when efforts are made to provide needed resources. The **next chapter** will discuss how teachers and disability practitioners are making adaptation and accommodation to make learning meaningful for learners with visual impairments.

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chapter 18

Disability Studies in Inclusive Education

Curriculum adaptation for learners with visual impairments

Kofi Nseibo

Chapter learning outcomes

After completing this chapter, you will be able to:

- Discuss teaching strategies for inclusive learning in the context of learners who are blind or have low vision.
- Analyse how the principles of Universal Design for Learning (UDL) can be used to create conducive learning environments for learners with visual impairments.
- Understand the importance of the Expanded Core Curriculum (ECC) to learners with visual impairments.
- Describe and be able to recommend a range of assistive technology devices for learners with visual impairments.
- Explore the intersection between incidental learning and adaptation for learners with visual impairments.

Preparatory activities

READ: Assistive technology for learners who are blind or have low vision: A TEDI short guide

Author: Teacher Empowerment for Disability Inclusion (TEDI)
Year: 2020
Estimated reading time: 1 hour
File size: 1.7 MB

Read through the resource guide, paying special attention to the section on the ECC.

READ: Practical approaches to curriculum differentiation for learners with visual impairment

Author: Hestelle Viljoen
Year: 2020
Estimated reading time: 3 hours
File size: 13.6 MB

READ: Top 10 UDL tips for designing an engaging learning environment

Author: CAST
Year: 2016
Estimated reading time: 25 minutes
File size: 652 KB

ACTIVITY

Estimated time: 25 minutes

When you have read the reading materials above, respond to the following questions:

1. Briefly state three things you will do when teaching children who are blind or have low vision in an inclusive classroom.
2. Briefly explain what the ECC is.
3. Identify 10 assistive technology devices.

Introduction

In this chapter, we continue to discuss the impact of visual impairment on learning. We discuss the application of teaching strategies for inclusive learning in the context of learners who are blind or have low vision. We shall also analyse how the principles of UDL can be used to create conducive learning environments for learners who are blind or have low vision and the importance of the ECC to these learners. Further, we shall discuss a range of high- and low-tech assistive technologies for learners with visual impairment then conclude with incidental learning.

Teaching strategies for inclusive learning in the context of learners with visual impairments

The planning, preparation and teaching of lessons that are designed to achieve a learner's goals is the core concern of the classroom teacher. To advance their knowledge and ability to effectively engage students and enhance their learning, classroom teachers should engage in critical reflection and inquiry. Teachers have a significant impact on the lives of learners and play a variety of different roles in the classroom, including creating a welcoming environment, guiding and caring for learners, and acting as a positive role model.

It is crucial for teachers to learn how to modify the learning environment so that learners with low vision can see them more easily. Planning environmental changes requires taking into account factors like lighting, colour, contrast, size and distance, and the organisation of time and space. Keep in mind that even though children with low vision will benefit from the following suggestions, it is crucial to take into account the characteristics of the visual impairment, as discussed in **Chapter 17** (whether the impact on the learner results in decreased visual acuity, a loss of central visual field or a loss of peripheral visual field) when making specific suggestions to improve vision.

We will now engage with some practical tips for enhancing teaching for inclusive learning in the context of learners who are blind or have low vision.

Illumination

Some children with low eyesight are extremely sensitive to light and glare. Where possible, teachers should use curtains to control and keep the light level in the room consistent. They should place learners next to windows to reduce glare and they should encourage children to wear hats, visors or sunglasses even while they're inside. It is advised to let the learner sit near windows or natural light, but you should also consider the needs of other learners who need to have ample light. If lamps are used, they should be positioned behind the learner's shoulder, opposite the writing hand and/or on the same side as the stronger eye.

Colour and contrast

High contrast images and objects may be advantageous for learners with limited eyesight. For instance, if you highlight the lines on a piece of paper with a black marker, it will be simpler to see them. The brightly coloured tray makes the white utensils easier to notice when eating lunch than on a white table. If the student uses a black pencil, pen or marker with a large nib they will be able to read their own writing more easily. Basic guidelines for using colour to create contrast include avoiding pastel colours next to each other, avoiding white and gray with other light colours, using high-contrast objects for daily activities, and using duct tape to draw attention to an object (such as the hanger where the coat is hanging). When reading, a learner can also require a typoscope. This reading shield has a rectangular opening that allows the reader to see one or more lines of print. It can be constructed out of cardboard or a black substance and helps the pupil stay on the right line while reading by reducing additional light reflected from the paper surface.

Size and distance

Magnification might also be advantageous for learners with poor eyesight. Teachers might give their learners bigger prints of maps, photos, and other visual materials. Both the learner and the item may be shifted closer to one another (for example, by moving their seat closer to the board).

Organisation of time and space

To improve the colour and contrast on doorframes, tabletops and other items of furniture, spotlights can be used to control the level of light in particular areas. Keep the space and the school supplies well organised so that the learner can easily identify them and remove unnecessary objects from the immediate working area. These actions will help reduce visual

clutter in the classroom. Teachers can also give their learners a reading/writing stand, a clipboard, a standing lamp and a good chair or table to increase physical comfort and promote proper posture. Effective use of time will also be advantageous for learners with low vision. For example, when working with a material that has not been adjusted to the student's visual needs, teachers can encourage the learner to wear their prescribed glasses (if appropriate) to reduce visual fatigue, suggest pre-arranged breaks, allow the learner to be visually focused for shorter periods of time, and offer more time when visually exploring learning materials.

Accommodation for learners with reduced visual acuity

Prescribed glasses by a physician (e.g. an ophthalmologist), magnifying (enlarging print and images), high contrast materials (such as highlighting of reading materials, stairs and entrances), and preferential seating (to get closer to an object, board, etc.) may be helpful for learners with reduced visual acuity. Teachers can remove or adjust the source of light, place the learner away from the source and/or suggest using sunglasses and hats (particularly outside) if glare sensitivity is a problem, which is typical in cases of impaired visual acuity. Teachers can also try to introduce the intended work and setting to a learner who has trouble with distance vision. When there are less items around their visual goal and a visual break is provided, the environment is visually simplified.

Accommodation for learners who have lost their central visual field

The same techniques used in the case of reduced visual acuity (described above) frequently help learners who have lost their central visual field. It is crucial to stress that these learners might see distorted images or have a central "blind spot" in their vision. These learners should be taught to visually scan, trace and follow objects by the teacher in the classroom. It is advised to teach children how to turn their gaze to make direct eye contact so that they can do so in future interactions because they also appear to avoid maintaining it.

Accommodation for learners who have lost their peripheral vision

For learners who have lost their peripheral vision, assistance may be required to learn how to gain orientation and mobility; for instance, instruction may be required in order to learn how to use a white cane.

Learners with peripheral vision loss may have to rely on their other senses to be aware of their surroundings. Teachers can encourage learners to employ a multi-sensory strategy to gather information, which is centred on paying close attention to touch and auditory input in addition to visual clues. Extreme changes in lighting should be avoided or minimised and learners should be given enough time to adjust to changes in their environment before starting activities (for instance, when going from outdoors to indoors, it may take longer for their eyes to adjust). These learners might also require additional glare-free lighting. Ideally, focussed lighting (e.g. desk/floor lamps, spotlighting) should be added to good general lighting in the classroom when undertaking specific tasks. The learner's seat should also be positioned correctly.

A word of advice

When teachers implement the suggestions mentioned above, they give learners who are visually impaired or have low vision opportunities for greater active participation, while inspiring them to use their vision more effectively. Learners with limited vision will always appreciate the meaningful activities, the use of appropriate materials and being offered clear information through repetitive routines. It is crucial to remember that these tactics are merely suggestions. Children with low vision benefit from specific approaches that take into account their unique visual demands.

Applying UDL principles to create conducive learning environments

In this section, we will use Stratton's (1990) principles of adaptation; after which we will engage with the principles of UDL to discuss how we can create a conducive learning environment for learners with visual impairments.

Stratton (1990) proposes a hierarchy to assist teachers when adjusting the core curriculum to facilitate inclusive learning. The model by Stratton (1990) recognises the importance of modifying the curriculum based on the learner's individual set of needs. Stratton always proposes the use of the least restrictive methods so that learners can connect and interact with their environment as much as possible. In Stratton's hierarchy there are four levels of curriculum adjustments (see Figure 1).

Figure 1: Stratton's hierarchy of principles of adaptation (Adapted from: Stratton, 1990)

Figure 1 shows four levels of adaptation. On the far left, the vertical arrow illustrates the degree of inclusivity for each of the adaptations. The least restrictive method (on the bottom layer of Figure 1) is when the principles of UDL (**Rose, 2000**) are applied, in which, curriculum design provides multiple means of representation, expression and engagement to suit the needs of all learners. The teacher making accommodations for the learner to learn in the classroom is the second level. This could be in the form of written braille, larger type or magnified schematics. In the third level, curriculum and assessment must be modified to meet academic requirements. This may be necessary when the contents include complex visual elements, such as cartoons, films, learning objects, graphs and maps. At the fourth level, teachers need to consider whole new approaches, in that the curriculum needs to change completely to ensure that all learners can engage in learning if the third level still does not provide adequate access to all learners.

Let us now refresh our memory and understanding of the concept of UDL (described more fully in **Chapters 11** and **12**). UDL is a research-based framework or approach to teaching and learning that helps to make education accessible to all learners. The foundation of UDL is the idea that all learners' requirements should be considered while developing, implementing and imparting learning stages and activities. It supports a set of curriculum creation guidelines that ensures all students have an equal chance to learn. UDL's overarching goal is to expand access to learning for all learners by reducing or lowering obstacles to participation and engagement. The three overarching principles of UDL that should guide teachers, educators and curriculum designers are multiple means of representation, multiple means of action and expression, and multiple means of engagement.

Creating an accessible classroom

When setting up a classroom to accommodate a learner who is blind or visually impaired, there are a few things to keep in mind. To improve the environment, you shouldn't be afraid to rearrange the classroom, but try to refrain from making too many changes and remember that you will need to orient the learner to the space. When the learner must be placed in specific areas in the room to provide for illumination, proximity and access to exits, it might be difficult to balance these requirements with seating arrangements that are conducive to promoting social interaction.

When other learners in the class are grouped in clusters, efforts should still be made to place learners with visual impairments with them to encourage social contact. A less cluttered classroom also encourages mobility in movement and aids students in autonomously finding and tidying up their belongings. It is therefore possible to see classroom layout as a tool for changing learner behaviour. After considering classroom positioning, the next phase is to assist the learner in "learning to look" by respecting where and how (if the learner has any useable vision) they see best and controlling environmental factors such as lighting, colour, positioning, spacing, contrast, size and detail. This will make it possible to guarantee that the learner has the modifications required for success and maximum independence. Let us now consider the following 14 steps in managing your inclusive classroom.

Step 1: The first stage in setting up the classroom is to sketch it out, taking note of any immovable features (such as windows, doors, cupboards, counters, etc.). Additionally, mark the locations of the exits and computer or phone plug points and outlets clearly with an "X" using duct tape. Generally speaking, this will determine where the teacher's desk and any other electrical equipment will be placed.

Step 2: It is crucial to have a tidy classroom that is devoid of both physical and visible clutter. As a general rule, stay away from oversized furniture, supplies and equipment, but don't go so far as to make the space look institutional. Make sure the designated locations for each activity are clear. Of course, the needs of a preschool class will differ from those of a class for students with various disabilities in the fourth grade or the high school. Plan your lesson taking your class's needs into account.

Step 3: To aid the development of orientation and mobility skills for students who are mobile, arrange the furniture to provide clear traffic pathways and ensure that these routes or pathways are safe and accessible. Additionally, make sure there is enough room to manoeuvre wheelchairs, standing aids or other specific equipment. Position the furnishings so that it improves their range of motion.

Step 4: Don't stack shelves and containers any higher than shoulder height. If the shelves and containers are not secured, this poses a safety risk in addition to blocking the view of the classroom and giving the impression of a complicated maze.

Step 5: Materials should be kept in the same place. By doing this, you and the other team members will be able to find the materials more easily and the student will know where to locate them.

Step 6: Provide adequate contrast in the furnishings, walls and flooring for learners who have low vision. When toys are left on the carpet where they can't be easily seen by a student with low vision, a visually cluttered carpet might be problematic in terms of safety concerns. However, this sometimes cannot be regulated due to availability.

Step 7: Keep an eye out for surface variations (wood, carpet, tile, etc.) and, if there isn't enough contrast, highlight the edges. There are numerous ways to accomplish this, in both the long and short term. You can temporarily accentuate edges by applying duct tape along their perimeter. Duct tape is now offered in a range of hues and patterns. Choose a colour with strong contrast and stay away from tape with patterns. Step edges can be painted or covered with rubber grips for a long-lasting fix. If you notice that the student constantly bumps against corners, you can tape a contrasting colour across the edge of tables and cabinets. You may also need to highlight steps, power outlets and other features using colour or contrast.

Step 8: Using varied floor textures to distinguish between carpeted and tiled spaces can be useful for learners who have little or no functional vision in order to give them additional tactile cues.

Step 9: If the learner is moving around, it is crucial to have sensory cues in the room which enable them to move by engaging with trailing surfaces. This enables them to move around the space by feeling along the edges of cupboards or tables.

Step 10: Secure any electrical cords, scatter rugs or runners, and any other objects that might constitute a safety risk to the floor with tape or tacks.

Step 11: Create landmarks to aid the development of learners' mobility and orienting abilities. A learner with reduced vision can navigate the classroom more comfortably with the aid of carefully chosen sound, tactile, scented (but only if it is a consistent aroma) or highly visual hints.

Step 12: Place the learner's cubby or locker at the end of the hallway or next to a prominent landmark to promote independence and orientation skills.

Step 13: Teach all learners to close or open doors completely, to push their seats beneath the table or desk when they get up and to collect their belongings when they are finished.

Step 14: Determine the learner's ideal position and best visual field before placing them in a seat. In this regard, the learner must be situated close to an electricity outlet if they use an electronic magnifier or other electrical equipment. You also need to bear in mind that the material that the learner with a vision impairment is viewing on their electronic magnifier will be visible to other students (keep this in mind when taking any test!). The learner might also require additional space for equipment storage. Be mindful of appropriate desk and chair heights. For optimum upper body support and movement, the learner's feet should be flat on the floor and the desk should be at a comfortable height that is not too low or too high.

The importance of the Expanded Core Curriculum

Learners with visual impairments cannot rely on sensory observations; whereas sighted learners use visual encounters throughout their lives to absorb concepts casually or incidentally. The fundamental abilities they require for everyday living at home, at school and in the community must be deliberately taught and incorporated into every facet of their education.

The ECC refers to the concepts and skills that often require specialised instruction for learners who are blind or visually impaired to compensate for decreased opportunities to learn incidentally by observing others (**Texas School for the Blind and Visually Impaired, 2014**).

The ECC is the body of knowledge and skills that are needed by learners with visual impairments due to their unique disability-specific needs. Learners with visual impairments need the ECC in addition to the core academic curriculum of general education (**Allman et al., 2014**). The ECC is comprised of nine curriculum components tailored to the needs of people with disabilities that aim to support teachers in aiding students to become as independent as possible to prepare them for employment, promote social engagement and lead the most fulfilling lives possible.

The nine components of the ECC identified by the Perkins School for the Blind (2021) are:

1. **Compensatory access:** Learning how to acquire, share and process information without sight or with severely limited vision.
2. **Sensory efficiency:** Using all senses to access information and communication in an efficient manner.
3. **Assistive technology:** Leveraging technology such as screen-reading software and refreshable braille keyboards to support communication.
4. **Orientation and mobility:** Navigating independently and safely by knowing one's position relative to other people, objects and places, and getting from place to place safely and efficiently.
5. **Social interaction:** Learning how to behave in social situations without the benefit of non-verbal cues.
6. **Recreation and leisure:** Participating in physical activities and learning how to plan for and incorporate social and leisure time in one's schedule.
7. **Independent living:** Taking care of oneself as independently as possible, including a broad range of activities such as eating, dressing, money management and household operation.
8. **Self-determination:** Learning how to advocate for one's own needs.
9. **Career education:** Developing the skills and knowledge needed for success in employment.

Further illustration of the nine ECC components demonstrating differences in approach for primary versus high school learners is presented in Table 1.

Table 1: The progression of ECC skill development from primary to high school (Adapted from: Perkins School for the Blind, 2021).

ECC component	Primary school learners with visual impairments	High school learners with visual impairments
Compensatory access	Communicating wants and needs.	Engaging in simple conversation, in person or in writing. If appropriate, learning braille or sign language.
Sensory efficiency	Practising tactile and auditory discrimination, localising sound. For students with low vision, practising eye tracking.	Practising listening skills. Understanding their visual impairment and making maximum use of any existing vision.

ECC component	Primary school learners with visual impairments	High school learners with visual impairments
Assistive technology	Using a tablet to express preferences by tapping. Practising swiping and pressing keys, buttons and switches. Using computer software to begin literacy development.	Using a screen reader or magnification software to conduct basic navigation. Using a portable braille notetaking device to create documents.
Orientation and mobility	Learning to reach for objects and move toward a target, sound or stimulus.	Practising the correct way to hold a white cane or use other mobility device. Following simple instructions when travelling.
Social interaction	Learning to engage in non-verbal communication. Faces those who are speaking. Takes part in healthy reciprocal play. Understands sharing.	Practising self-regulation. Recognising and identifying emotions. Asking appropriate questions. Understanding the importance of listening.
Recreation and leisure	Learning how to play independently, how to pretend, how to play with toys and manipulate objects. Engaging in physical play.	Learning how to use one's time. Listening to music, completing simple projects, using blocks or other toys to make simple constructions.
Independent living	Learning to assist in eating, dressing and toileting. Learning to put away toys.	Keeping track of belongings, feeding and dressing oneself, practising hygiene routines. Making their bed and picking up after oneself at home and school.
Self-determination	Learning to choose activities and make decisions.	Understanding their visual impairment. Demonstrating a positive sense of self-worth. Identifying and expressing feelings appropriately.
Career education	Learning responsibilities like putting away toys. Understanding different roles people play (e.g. firefighter, teacher, parent).	Taking responsibility for actions and working individually or in a group. Understanding the concept of work and able to identify various jobs.

It is crucial for learners with visual impairments to access the ECC to gain knowledge and skills that will help them make up for their vision loss. The ECC foregrounds the following aspects of curriculum adaptation: (1) content, (2) methods of presenting learning materials, and (3) methods of assessment. Within this framework, new skills and ideas (input), the methods and activities learners with visual impairments use to understand content in their own context (processes), and how these learners show their understanding of what has been learned (outcomes) are acknowledged as key elements in curriculum adaptation.

The other significance of the ECC is that the knowledge the teacher obtains in the course of implementing the ECC will enable them to apply the principles of UDL; that is, to present information and enable the acquisition of information and knowledge in different ways (representation), differentiate the ways in which learners can express what they know (expression), and allow learners to deepen their engagement and interest in the world around them through an array of learning activities that are accessible to learners with different abilities (engagement). Finally, the ECC can also provide clues about how teachers can evaluate the effectiveness of their teaching and approaches to assessment. Effective evaluation and assessment enables teachers to identify needs and strengths of learners with visual impairments. One of the core components of the ECC is the use of assistive technologies to address the needs of learners with visual impairments.

Assistive technologies for learners with visual impairments

The educational setting presents particular difficulties for learners with visual impairments, in that they must be able to fully engage in instruction that frequently includes rich visual content in addition to having access to text-based information across all subject areas. One approach to assist these learners in that process is through assistive technology. In this section, we will engage with some definitions of assistive technology, discuss the classifications of assistive technologies and how to use assistive technology devices with the principles of UDL in mind.

GLOSSARY: Assistive technology devices

The term "assistive technology devices" refers to a variety of tools, gadgets and techniques that enable a student to do a task that they would otherwise be unable to complete or have difficulties completing effectively. It includes anything that helps increase, maintain or improve the independence and learning capabilities of individuals with disabilities (**TEDI, 2020a**). Assistive technology for individuals with no or low vision works specifically to allow them to interact better with the world around them.

We utilise technology constantly in our daily lives, from basic low-tech things like pencils to high-tech gadgets like computers and phones. Employing assistive technologies in schools and in classrooms is complex. However, if the demands of the learners are properly matched to the environment, the teacher's knowledge and the resources at hand, it offers excellent chances for learning enrichment (**Dalton et al., 2012**).

For learners who have low vision, access to assistive technology means that they can have equal access to classroom teaching and learning, resources and opportunities to participate. In many cases, a class's educational content is primarily visual. Assistive technology aims to minimise learning obstacles and provide alternative ways to understand learning materials.

Classification of assistive technology devices

Assistive technology devices can be classified from low- to high-tech according to the degree of sophistication in the mechanical and electronic parts they are made of and other features such as power source and the knowledge and training the device user must have to optimise its assistance. It is always recommended that no-tech and low-tech solutions be considered before looking at mid-tech and high-tech options. Some experimentation may be required before the best learner-technology match is achieved.

Although low-tech devices may save costs, the main objective is to find the tools that offer learners full access to the curriculum and ensure that they are able to meaningfully engage in teaching and learning activities. Tables 2 provides an overview of the classification of assistive technology devices.

Table 2: Classification of assistive technology devices (Source: **TEDI, 2020a**)

Type	Description
Low-tech	Low-tech devices are simple devices that have few mechanical parts and do not require a power source. They include adapted spoon handles, adapted pens, canes, non-tipping drinking cups, magnifying glasses and eyeglasses. Limited or less training is needed to use these devices compared to mid- and high-tech devices.
Mid-tech	Mid-tech devices are relatively complicated mechanical devices that may require a power source, but do not contain sophisticated electronic systems. These devices include manual wheelchairs, talking calculators, adapted keyboards and trackballs. The operation of mid-tech devices requires some training and technical knowledge.
High-tech	High-tech devices are often computer-based systems that incorporate sophisticated electronics. They are complicated to use and require extensive training, technical knowledge and access to technical support. With their sophisticated electronics, high-tech devices are often much more expensive than other technologies. Examples include speech recognition software, gaze-controlled computers, closed captioning televisions, electric wheelchairs and environmental control units.

Choosing assistive technology devices

It should be noted that different subjects or fields of study require different types of engagement. This means, that choosing assistive technology devices should be done according to the subject and the needs of the learner in order to empower them to engage in activities across the curriculum. Also, the assistive technologies chosen should reflect learners' unique strengths and needs, and be appropriate for the activities they need to do to be fully included in the curriculum.

UDL concepts can be applied to ensure that devices are selected and used in a way that best serves learners with visual impairments. The principles of UDL support adaptable methods of using technology that are customised to meet individual needs, rather than adopting a one-size-fits-all approach. By removing obstacles to participation and engagement, UDL aims to expand access to learning for all learners.

Utilising a smartphone can be advantageous in situations where devices are expensive (such as electronic magnifiers). A single device can also serve numerous purposes. Smartphones

can become assistive devices thanks to apps that enable magnification, focus, light control; they also enable saving and sharing of content. Voice feedback on tablets can also be used to access teaching content and audio books; and smartwatches that use stimuli like vibration can be used to navigate between locations.

Table 3 provides examples of mid- and high-tech devices that can be employed in relation to specific UDL principles.

Table 3: Practical application of UDL using assistive technology devices (Source: **TEDI, 2020b**)

UDL principle	Assistive technology devices
Representation	**Mid-tech**
Enabling multiple ways of presenting content	• Braille reader and note-taker • Braille printer • Digital voice recorder • Desktop electronic magnifier • Portable electronic magnifier • Handheld electronic magnifier • Electronic handheld monocular • Optical magnifier • Braille translation software • Tactile touchpad and audio software • Handheld talking GPS • Navigational aid for the visually impaired • Cane-mountable electronic travel aid
	High-tech
	• Screen reading software • Refreshable braille display • Braille Personal Digital Assistant • Optical character recognition software and hardware • Simple computing environment • Braille translation software • Specialised e-Reader • DAISY reading software • Screen magnification software • Tactile graphics producing software • TapTapSee • Mathematics software

UDL principle	Assistive technology devices
Expression	**Mid-tech**
Enabling learners to communicate what they know and can do through various means	• Large-print keyboard • Manual braille writer • Tactile duplicator • Digital voice recorder
	High-tech
	• Keyboard literacy software • Tactile graphics producing software • TapTapSee • Simple computing environment
Engagement	**Mid-tech**
Enabling the facilitation of choices of learning activities to cater for varied abilities of learners	• Audio labelling device • Mouse-type magnifier • Braille translation software • Tactile duplicator • Tactile touchpad and audio software • Optical magnifier • Handheld talking GPS • Navigational aid for the visually impaired • Cane-mountable electronic travel aid
	High-tech
	• Screen reading software • Multimedia player • Keyboard literacy software • Simple computing environment • Tactile graphics producing software • Specialised e-Reader • Mathematics software • TapTapSee

The importance of incidental learning

The concept of incidental learning was established in recognition of the vast amount of knowledge that all humans have gained without explicit aim or instruction (**Davis & Francis, 2022**). It can be defined as learning that occurs as a by-product of another activity; that is, learning that does not require a teacher or instructor to provide targeted teaching. It is usually unplanned and spontaneous and happens unintentionally.

Incidental learning is very important for children with visual impairments. Research shows that approximately children learn more than 80% of what they know through their vision (**Lazarus, 2020**). Consider what happens when you walk into a room. Normally, you can quickly determine the room's contents, who is present, what they are doing and, if the room has a window, you can even gauge the weather outside. A lot of what children learn happens fairly instantly and naturally, or incidentally, as they observe how other children and adults interact with their surroundings and mimic those behaviours. Incidental learning is knowledge acquired via daily observation of the people and activities in our environment.

In order for a visually impaired child to understand what other children learn simply by watching others and imitating them, they will require additional explanations, descriptions and repeated encounters. It is not necessary for a child with limited or no vision to be educated all the time, but you should bear in mind that without assistance, they won't learn about the things they can't touch. Even with objects that are touchable, they might require extra time to investigate them and your explanation to fully get what they are.

We will now engage with a few practical tips on how to support incidental learning for children with visual impairments.

Include children in sensory activities from a very young age: When your children are very young, include them in household chores. Take your child with you when you need to heat a bottle in the microwave, explain what you are doing, let them feel the icy air coming out of the refrigerator, carry the bottle with you and hear the sound of the microwave. When the bottle is prepared, let them hit the button to open the microwave door while holding your hand underneath their hand so you can touch the heated bottle. Otherwise, if you always give your child a warm bottle, they won't understand how it got that way.

Connect the unknowns you want to teach your children with the known: Try to connect what you want to teach your infant to something they already understand. For instance, if your child enjoys petting and touching your cat's legs and ears, compare the lion at the zoo to your cat. Both of them have four legs, ears and fur. However, lions are much larger, cannot be kept as pets and can only be found in zoos or in the wild.

Support your children to do what they like: The more your child interacts, they more they will learn. If your child enjoys eating oranges, let them assist you in choosing them at the grocery store, store them in the refrigerator once you get home and take one out when they want a snack. Explain to your child that orange juice is manufactured from the oranges they like eating when they drink it. To truly assist your child, comprehend where the juice comes from, you may even let them squeeze their own juice.

Use the hand touch strategy to teach your child: Whenever you show your child an object, employ the hand-under-hand strategy. In this approach, your child's hands are placed on top of yours and they are able to sense your movements. Reaching out and touching something while your child can't see it and doesn't know what it is can be frightening for them.

Try to take your child out: Expose your child to environments outside the home. Find places where there are items for them to touch. Botanical gardens, science centres and petting zoos frequently welcome children and allow contact. Don't be hesitant to enquire if your child can touch if you visit a location where touching isn't usually permitted as part of the activities.

Conclusion

Vision is one of the senses that provide information about the environment; as such, learners with visual impairments may miss incidental information and important social cues. Visual impairment negatively affects academic engagement if modifications are not made in the curriculum to promote inclusion. Designing classrooms to suit the individual needs of all learners with visual impairments will encourage active participation.

In this chapter, you have learned about teaching strategies for inclusive learning in the context of learners with visual impairments. You have also learned about the importance of the ECC and the range of assistive technology devices for learners with visual impairment. It is hoped that after reading this chapter, you will be able to adjust content in the least restrictive way for learners with visual impairments and employ pedagogies that foster an inclusive environment and encourage active involvement from all learners.

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section G

Disability Studies in Inclusive Education

Intellectual disability

chapter 19

Disability Studies in Inclusive Education

Overview: Intellectual disability, impact on learning and learner support

Chantal Samuels

Section learning outcomes

After completing this section, you will be able to:

- Describe the nature of intellectual disability and its causes.
- Examine the effects of intellectual disabilities on children in the classroom.
- Explore the barriers experienced by learners and the impact this has on caregivers and parents, with specific relation to family-professional partnerships.
- Reflect on the experiences of children with severe to profound intellectual disabilities (SPID) and their families in an empathetic way.
- Explore the perspectives of parents and caregivers in the education of learners who have SPID.
- Describe the different kinds of learning support needed for learners with intellectual disabilities to participate in education.
- Identify barriers to learning experienced by learners who have intellectual disabilities, particularly those with SPID.
- Apply teaching strategies for inclusive learning in your own educational context for learners who have different levels of intellectual disability.
- Analyse how the principles of Universal Design for Learning (UDL) can be used to create conducive learning environments for learners who have intellectual disabilities.
- Explain the importance of human rights and legal issues for learners who have intellectual disabilities, particularly those with SPID.

Introduction

In this section, we cover the nature of intellectual disability, the effect of intellectual disability on learning for the child with an intellectual disability, and related educational and legal issues. There are different levels of intellectual disability and these levels have different implications for the barriers learners with intellectual disabilities encounter in trying to obtain an education; which in turn has significant implications for the roles their caregivers need to play. We take a particular focus on a neglected group, which is learners with SPID, their right to education and the implications barriers to care and education have on the lives of their caregivers and families.

Learners with milder forms of intellectual disability may not need the high levels of support described in these chapters; therefore, the implications would be different and the barriers to education experienced by these learners and the implications for their families would be varied.

In **Chapter 20**, we unpack the nature, effect and levels of intellectual disability. We explore the barriers experienced by learners and the impact they have on caregivers and parents, with a particular focus on learners with SPID. Caregivers are given a voice revealing their experiences as caregivers of learners with SPID in the South African context.

Caregivers play a pivotal role in the lives of children with intellectual disabilities, especially in the lives of children with SPID. Caregivers of learners with intellectual disabilities range from paid to unpaid, formal and informal, family members or even health therapists. Whether they are family caregivers or caregivers at special care centres, they are indispensable to realising the rights of persons with intellectual disabilities. By the very nature of their condition, people with SPID find it difficult to meet their personal needs and assume social responsibility in certain aspects of their daily living. The lifelong responsibility to care for and support a person with an intellectual disability falls on those involved in their lives.

In **Chapter 21**, we explore strategies for learner support and curriculum adaptation to accommodate learners with SPID in relation to the barriers these learners face. We also examine the disjunct between the experiences of caregivers and the policies and human rights frameworks and how caregivers are not given sufficient priority in policies, research and practice in South Africa.

In the insider view presented below, Taryn du Toit conducts an interview with Eliz-Mari Williams, a caregiver at the Centre for Caring and Sharing in Touwsrivier in the Western Cape, on her experiences as a caregiver of learners with SPID.

WATCH: Support needs: A caregiver's perspective

Creator: Taryn du Toit & Eliz-Mari Williams
Date: 2019
Duration: 13 minutes

Insider view: Perspectives on education

Eliz-Mari has worked with children and teenagers with SPID, predominantly foetal alcohol syndrome, for eight years. A typical day for Eliz-Mari begins with checking the children's emotional moods; followed by gross motor, fine motor and cognitive development activities. She describes each day as "an adventure" informed by the needs of the children. Her challenges include building up the children's self-esteem to accept their disabilities while confronted with the small-town, societal stigma surrounding the word "disability".

"See me before you see my disability" is a mantra Eliz-Mari and the other carers share with the children to bolster their self-esteem. Much like the children she cares for, Eliz-Mari was a shy, unconfident child, but with the children's pure, unconditional love for her, her self-esteem has improved, making her who she is today. Her motivation to care for the children comes from her belief that her community's children are her children and that someone needs to step up and care for them.

Eliz-Mari works to decrease the community stigma towards people with disabilities by hosting educational sessions and talent shows starring the children; she also involves the children in the community through activities, such as taking the teenagers grocery shopping. One of the benefits of involving the community in the children's lives is an improvement in their self-esteem to continue confidently interacting with the community. There is a large, positive impact on the children's well-being when they feel accepted and involved in the community. Therefore, Eliz-Mari encourages the children to make friends with children outside of the care centre.

The support the children receive includes physical support, learning support and social support. Eliz-Mari and the other carers have a system for providing physical support, in which the child first tries the activity on their own and the carers assess where assistance is required. This process is informed by the principle that the child needs to be as independent as possible. Physical support includes repetition of activities, engaging the children in sensory stimulation and always finding a way to involve the children in activities. Building trust with the children is important for Eliz-Mari. For example, before helping a child put on their shoes for the first time, she asks them to help her put on her shoes. She then shows them how to put on the shoes and asks them to try put on their own shoes.

The areas of support provided by the care centre address the social, emotional, financial and legal needs of the children. Eliz-Mari strives to provide social and emotional support because she wants the children to accept themselves as strong, independent people and to be part of the community. The centre welcomes community members to come and learn about SPID, on condition that they treat the children respectfully. The centre also has a social worker who provides legal support. On occasion when the social worker is unable to act immediately, Eliz-Mari and the other staff go to the police. Oftentimes the police are uncooperative, especially

because a child with an intellectual disability is involved. Eliz-Mari is determined to help the children, so she remains at the police station until the police assist her.
Her persistence has been noticed by the police, so they are now more proactive in processing the cases she brings. In terms of financial support, most of the children receive social grants which pay for their attendance at the care centre; for those children who do not receive grants, the carers organise fundraising or cover the payments themselves.

Eliz-Mari and the care centre team work consistently to provide individualised care based on each child's needs, often discussing the way forward for each child. The children's parents are also involved so that the individually adapted activities continue at home. These activities are drawn from the ideas of the care centre team, a short course on special needs that Eliz-Mari attended and the **Teacher Empowerment for Disability Inclusion** free online course.

Eliz-Mari feels rewarded seeing the children accomplish developmental states unique to their abilities, regardless of the timeframe required to achieve these goals. Eliz-Mari asks for non-disabled people to see the humanity of children with disabilities before seeing their disabilities. She notes that non-disabled people expect children with disabilities to accept non-disabled people as "normal" and fully human, so she asks for non-disabled people to do the same of children with disabilities. Finally, Eliz-Mari challenges everyone to get to know a child with a disability, to see the child before their disability, and to accept the child for who they are, entirely.

REFLECTION

Estimated time: 10 minutes

Reflect on your personal response to engaging with children with intellectual disabilities. How does this experience make you feel and how do you treat the children? How does your personal response compare with your community's response to engaging with children with intellectual disabilities?

chapter 20

Disability Studies in Inclusive Education

The nature of intellectual disability and its impact on learning

Chantal Samuels

Chapter learning outcomes

After completing this chapter, you will be able to:

- Describe the nature of intellectual disability and its causes.
- Examine the effects of intellectual disabilities on children in the classroom.
- Explore the barriers experienced by learners and the impact this has on caregivers and parents, with specific relation to family-professional partnerships.
- Reflect on the experiences of children with severe to profound intellectual disabilities (SPID) and their families in an empathetic way.
- Explore the perspectives of parents and caregivers in the education of learners who have SPID.

Preparatory activities

WATCH: TEDI 4 week 1 – Understanding the impact of intellectual disability

Creator: Judith McKenzie
Date: 2019
Duration: 11 minutes

READ: Family-professional partnerships: Why they are needed for inclusive education to work in South Africa

Author: Teacher Empowerment for Disability Inclusion (TEDI)
Estimated reading time: 30 minutes
File size: 459 KB

Introduction

In this chapter, we examine intellectual disability. While there are various levels of intellectual disabilities, we focus on SPID. We recognise that learners with SPID are the most neglected of children in the education system. Despite the belief that these children are ineducable, they are able to learn when they are given the right opportunities to do so. In this chapter, we consider the human rights of learners with intellectual disabilities and the ways in which their families are affected. We also briefly consider the impact of intellectual disability on learning in children with less severe intellectual disability.

The American Association on Intellectual and Developmental Disabilities (AAIDD) cautions against defining persons only in terms of deficit and states that every person, no matter what their disability, has strengths that can be built upon by providing the right kind of support. This chapter examines possible support approaches.

GLOSSARY: Intellectual disability

Intellectual disability is "a significantly reduced ability to understand new or complex information and to learn and apply new skills (impaired intelligence). This results in a reduced ability to cope independently (impaired social functioning), and begins before adulthood, with a lasting effect on development" (**Department of Health, 2001, p. 14**).

When considering ways to support a learner with an intellectual disability, we need to think of the levels of support available around the child. This means taking the community and environment into account, including factors related to linguistic diversity and cultural differences in the way people communicate, move and behave.

As a starting point, we will briefly examine the experiences of persons with intellectual disabilities in the past and how things have changed over the years.

Historical perspective

Historically, persons with intellectual disabilities have been one of the most stigmatised and marginalised groups in society, which was reflected in the negative terms used to refer to people, such as "retarded", "moron", "feeble-minded", "idiot", "demented", "imbecile" and "mongoloid" (**Conrad, 2020**).

In the Middle Ages, persons with SPID were called by these names and treated badly, as the disabilities were thought to be caused by demons. Others believed that persons with intellectually disabilities were spiritually possessed. During this period, persons with intellectual disabilities were ostracised (**Conrad, 2020**).

In the 18th and 19th centuries, there was a lot of progress and development in terms of educating persons with intellectual disabilities. Alongside this, there was also a move towards removing persons with intellectual disabilities from their families and confining them to mental institutions. This was not just to "protect" persons with intellectual disabilities, but also to protect society at large by locking away persons who were seen to be different and therefore dangerous.

Although we have more positive attitudes towards people with intellectual disabilities today due to scientific research and policy changes that address human rights and discourage the use of hurtful and derogatory names, persons with intellectual disabilities continue to be stigmatised, suffering exclusion from all social activities. There are also still people who perceive that the only solution to this so-called "problem" is through spiritual healing by prophets or fetish priests. Despite this way of thinking, more people are being informed and educated, which is resulting in a positive change in their way of thinking about and interacting with people with intellectual disabilities (**Conrad, 2020**).

As a way to start addressing these experiences, we need to understand the nature of intellectual disability and the barriers prohibiting learners with these disabilities from participating in society, specifically as relates to accessing curriculum and education.

GLOSSARY: Barriers to learning

Barriers to learning refers to the "difficulties that arise within the education system as a whole, the learning site and/or within the learner him/herself which prevent access to learning and development" (**Department of Basic Education, 2014, p. vii**). "Barriers to learning arise from the different aspects of the curriculum such as the content, the language, classroom organisation, teaching methodologies, pace of teaching and time available to complete the curriculum, teaching and learning support materials and assessment" (**Department of Education, 2001, p. 19**).

GLOSSARY: Curriculum

Curriculum consists of "the courses, lessons, and learning activities students participate in, as well as the knowledge and skills educators intentionally teach to students, the hidden curriculum consists of the unspoken or implicit academic, social, and cultural messages that are communicated to students while they are in school" (**Great Schools Partnership, 2015, para. 1**).

What is intellectual disability?

Intellectual disability affects the development of a child, starting before the age of 18 years and continuing throughout life. It affects the brain and can also affect physical abilities.

There are many causes of intellectual disability. The most common are:

- Causes before birth (prenatal).
- Causes during birth (perinatal).
- Causes during childhood (postnatal).
- Biomedical and environmental causes.

Intellectual disability results in children developing and learning slower than typical children in their age in two main areas: intellectual functioning and adaptive functioning.

Intellectual functioning is the ability to acquire and apply knowledge and skills by using reasoning, problem solving, abstract thinking, judgment, academic learning and learning from experience. Adaptive functioning is defined as the ability to adapt to the needs of everyday living. This requires certain skills such as conceptual, social and practical skills. With ongoing support, the person with intellectual disability can function in more activities of daily life (**Adnams, 2016**).

Intellectual functioning is often assessed with standardised IQ tests in conjunction with other tools. These tests provide standard scores, which can be useful but should be treated with caution, as they are often inappropriate and provide a limited sample of behaviour. Adaptive functioning assessments measure the conceptual, social and practical skills needed to cope with everyday living. Generally, there are four categories of intellectual disability: mild, moderate, severe and profound (**Adnams, 2016**).

It is important to differentiate between intellectual disabilities and learning disabilities. Intellectual disability refers to when somebody has a global developmental disorder, whereas a learning disability refers to when a person has difficulty learning in a specific academic area (**American Psychiatric Association [APA], 2021**). Table 1 provides examples of characteristics associated with each of these kinds of disability.

Table 1: Examples of characteristics associated with intellectual and learning disabilities

Intellectual disability (e.g. Down syndrome, autism spectrum disorder, foetal alcohol syndrome)	**Learning disability (e.g. dyslexia, dysgraphia, dyscalculia)**
Significant below-average intelligence	Average or above average intelligence
Affects general intellectual functioning	Does not affect general intellectual functioning
Impaired adaptive functioning	Impaired abilities: listening, reading, writing, speaking, calculations

The Western Cape Forum for Intellectual Disability pamphlet on understanding intellectual disability provides further information on intellectual disability, its causes and how to find the necessary resources for assistance.

READ: Understanding intellectual disability

Author: Western Cape Forum for Intellectual Disability
Estimated reading time: 30 minutes
File size: 431 KB

It is often believed that people with intellectual disabilities are all similar, but there are vast differences across disabilities that have an impact upon one's ability to learn and the support required. The Diagnostic and Statistical Manual of Mental Disorders, currently in its fifth edition (DSM-5-TR) is a taxonomic and diagnostic tool published by the American Psychiatric Association and used by mental health professionals. The DSM-5-TR (**APA, 2022**) provides a functional description of different levels of intellectual disability severity which looks at function in terms of the conceptual, social and practical domains. This is very helpful when it comes to understanding that the level of intellectual disability severity is best understood by looking at the function of a person rather than by IQ scores. So, rather than focusing on the IQ score, we are able to determine what the learner can and cannot do – and, more importantly, what we can do to support the learner.

When considering the type of support that the learner might require, it is not only important to consider the severity of the condition, but the co-occurring and associated conditions as well. Table 2 provides examples of different types of conditions associated with intellectual disability. Followed by the different levels of intellectual disabilities which clearly explains the impact on the learning and development of a learner with intellectual disability.

Co-occurring conditions are defined as medical or psychiatric conditions which occur alongside a particular condition. For example, for children with autism spectrum disorders social anxiety is one of the most common co-occurring anxiety disorders (**APA, 2022**). Associated conditions are defined as aspects or features of the primary condition; that is, they are expected elements of its pathology, although their expression may be variable. Examples of commonly associated conditions are providing in the table below (**APA, 2022**).

Table 2: Examples of co-occurring and associated conditions experienced by persons with intellectual disabilities

Co-occurring conditions	Associated conditions
Epilepsy	Down syndrome
Autism spectrum disorder	Foetal alcohol syndrome
Cerebral palsy	William syndrome
Spina bifida	Fragile X syndrome
Attention deficit hyperactivity disorder	Prader Willi syndrome
Hydrocephalus/microcephaly	Angelman syndrome

The impact of intellectual disability on learners

There are four levels of intellectual disability: (1) mild, (2) moderate, (3) severe and (4) profound. These levels each have implications for conceptual, social and practical functioning. Although we are largely focused on severe to profound intellectual disabilities, understanding the other levels provides clearer understanding of all degrees of intellectual disability. These levels of intellectual disability and how they impact learning for learners with intellectual disability are discussed below.

The following sub-sections, which describe characteristics related to the conceptual, social and practical functioning of learners with mild, moderate, severe and profound intellectual disabilities, are drawn from a presentation by Taryn du Toit from Cape Mental Health.

Mild intellectual disability

The following characteristics related to conceptual, social and practical functioning are typical of persons with mild intellectual disability.

Conceptual functioning

In very young children there might be no obvious problems present, but when it comes to school-age children, there are difficulties in learning academic skills involving reading, writing, maths, time or money and these learners might need curriculum adaptation in schools.

In adults, abstract thinking, short-term memory and functional use of academic skills are reduced. This results in a somewhat concrete (as opposed to abstract) way of thinking.

Social functioning

Communication, conversation and language are more concrete or immature than expected for age.

There may be difficulties in regulating emotion and behaving in an age-appropriate fashion. These difficulties are noticed by peers in social situations.

There is also limited understanding of risk in social situations as social judgement is immature for age; and the person is at risk of being manipulated by others (gullibility).

Practical functioning

The individual may function age-appropriately in personal care, but may still need some support with complex daily living tasks in comparison to peers.

As an adult, support would include shopping, transportation, home and childcare, nutritious food preparation, banking and money management. Recreational skills are the same as their peers but judgement around well-being and organising recreation time requires support. Employment is likely to be found in jobs that do not emphasise conceptual skills.

Individuals generally need support to make healthcare and legal decisions, and to learn to perform a skilled vocation competently.

Moderate intellectual disability

The following characteristics related to conceptual, social and practical functioning are typical of persons with moderate intellectual disability.

Conceptual functioning

It is clear from the start that the individual's conceptual skills are well behind those of their peers.

For pre-schoolers, language and pre-academic skills develop slowly.

For school-age children, progress in reading, writing, maths and understanding of time and money develop more slowly across the school years and the level achieved is limited compared to their peers.

As adults, academic skill development is typically at primary school level. Support is required for academic skills in work and personal life. Ongoing support for conceptual tasks will be required across their lifespan.

Social functioning

The individual relies more on the spoken word than the written word for communication.

They are able to have close relationships and have romantic partners. However, they may not perceive or interpret social cues accurately. Social judgement and decision-making abilities are limited and caregivers must assist with life decisions.

Practical functioning

The individual can do most activities of daily living if the time is taken to teach them to become independent; although reminders may be needed.

Persons can do household chores, although an extended period of teaching is needed and ongoing support will be needed for adult-level performance.

Independent employment in jobs that require limited conceptual and communication skills can be achieved, but considerable support from co-workers, supervisors and others will be needed.

Recreational skills usually require additional support and learning opportunities over an

extended period of time. Challenging behaviour is present in a significant minority and causes social problems.

Severe intellectual disability

The following characteristics related to conceptual, social and practical functioning are typical of persons with severe intellectual disability.

Conceptual functioning

The individual generally has little understanding of written language or of concepts involving numbers, quantity, time and money. Caregivers need to provide extensive support for problem solving throughout the individual's life.

Social functioning

Spoken language is quite limited in terms of vocabulary and grammar. Speech may be single words or phrases and may be supplemented through augmentative means, such as gesture, signs or pictures.

Speech and communication are focused on the "here' and now" within everyday events. Relationships with family members and familiar others are a source of pleasure and help.

Practical functioning

The individual requires support for all activities of daily living, including meals, dressing, bathing and toileting. The individual requires supervision at all times. The individual cannot make responsible decisions regarding well-being of the self or others without some support.

In adulthood, participation in tasks at home, recreation and work requires ongoing support and assistance. Learning new skills always involves long-term teaching and ongoing support. Some individuals at this level might show behaviours that are difficult to handle.

Profound intellectual disability

The following characteristics related to conceptual, social and practical functioning are typical of persons with profound intellectual disability.

Conceptual functioning

The individual has very limited conceptual skills and is best able to deal with concrete objects rather than symbols such as pictures or words and may use objects for specific purposes for self-care, work and recreation.

They can learn skills such as matching and sorting based on physical characteristics. However, there is a high likelihood of additional motor or sensory impairments which make learning difficult.

Social functioning

The individual struggles with symbolic communication in speech or gesture. They may understand some simple instructions or gestures and express their desires and emotions largely through non-verbal, non-symbolic communication. The individual enjoys relationships with well-known family members, caregivers and familiar others, and initiates and responds to social interaction through gestural and emotional cues. Additional sensory and physical impairments limit the amount and quality of social interaction and extensive support might be needed to ensure that this happens.

Practical functioning

The individual is dependent on others for all aspects of daily physical care, health and safety. They may or may not be able to participate in certain day-to-day activities. When the person does not have physical impairments, they can assist with simple chores around the home. With support, it is possible to engage individuals in vocational tasks that depend on simple actions with objects, such as sticking on a label. Recreational activities may involve enjoyment in listening to music, watching movies, going out for walks or participating in water activities; all of which need to take place with the support of others.

Additional physical and sensory impairments often limit the extent to which the individual can participate in activities and without support they might spend a lot of time just watching others. These individuals might show difficult and disruptive behaviour in some cases.

It is important to note that these levels of severity are not absolute. It might be that a child is more impaired in one domain than in another or that they fall on the border between levels. It is also true that children at different levels might have similar needs.

In addition to these challenges experienced by learners with intellectual disabilities, there are environmental barriers which further hamper their participation in a stimulating environment.

Barriers experienced by learners with intellectual disabilities and the impact on caregivers

The barriers experienced by learners with intellectual disabilities can be categorised as systemic, environmental, social or attitudinal. These barriers are intertwined and do often not exist in isolation, making them all the more challenging to address.

Systemic barriers

Systemic barriers are existing laws and policies that unfairly discriminate against and impede people with disabilities from participating in particular activities. Policies intended to support learners with intellectual disabilities, but which fail in terms of implementation and the level of understanding required, also present a systemic barrier (**Kleintjes et al., 2020**; **McKenzie et al., 2013**).

The adoption of rights-based methods to service delivery for people with disabilities is strongly encouraged by international and local legislation. People with intellectual disabilities are included in the policies, but these policies are often not implemented effectively due to inadequate consideration of needs and the circumstances in which people with intellectual disabilities find themselves. People with intellectual disabilities, particularly those with SPID, are therefore often excluded from service delivery as a result of decision-makers' limited understanding of their needs (**Kleintjes et al., 2020**).

For instance, interacting with others is a trait that characterises humans. However, despite the fact that communication is highlighted in policy and legal frameworks as a fundamental human right, but is frequently denied to children with SPID who struggle with communication challenges and need to attend special care facilities, particularly in under-resourced settings (**Geiger, 2012**).

Environmental barriers

Environmental (or physical) barriers that prevent people with disabilities from actively participating in society can be characterised as either internal or external, include physical obstacles like doorways, architectural features and room arrangements.

Internal environmental variables refer to elements in the homes and educational facilities; whereas external environmental factors refer to aspects in the community and how the accessibility of the surroundings affects the involvement and learning for learners with intellectual disabilities (**Kleintjes et al., 2020**; **McKenzie et al., 2013)**.

External environmental barriers

The development and participation in activities for children with SPID can be impeded by a variety of external environmental factors. For instance, public parks, libraries, shops and roadways can make it difficult or even unsafe for the child to engage or explore the space if they don't provide accommodations for the needs of children with intellectual disabilities, such as ramps for wheelchair access and railings to assist mobility. Due to these barriers, learners with SPID are excluded from social activities (**Ahmad, 2012**).

Environmental constraints also make it very difficult for people with intellectual disabilities to take care of their basic healthcare requirements. These constraints include unhealthy and environmentally compromised living circumstances, unsafe living conditions and transportation routes that are difficult to manage without assistance. The extensive distances people need to travel to access health services and the expense involved is also a fundamental barrier to a healthy lifestyle and social interaction (**Kleintjes et al., 2020**; **Mkabile & Swartz, 2020**).

These barriers can also be one of the reasons why parents refuse to let their children attend special care centres; thereby depriving them of access to stimulating activities hampering their development (**Ahmad, 2012**).

Internal environmental barriers

Internal environmental barriers refer to infrastructure in the home. The availability of bathrooms, running water, electricity, walls, short hallways, stairs or even the placement of furniture can limit what a child is exposed to (**Ahmad, 2012**).

Social barriers

Social barriers result from limitations within people's environments that hinder their ability to live, learn and work. Social barriers that limit access to resources, opportunities or locations have an effect on people's health and well-being (**Kleintjes et al., 2020**; **McKenzie et al., 2013**).

Attitudinal barriers are a kind of social barrier caused by how people view people with disabilities. It is no secret that society frequently harbours prejudice and discrimination

against people with disabilities. Society often treats people with disabilities with fear, pity, and contempt and tries to avoid them. These barriers are often brought about by a lack of knowledge and false assumptions about people with disabilities (**McKenzie et al., 2013**).

In order to gain a better understanding of the attitudinal barriers to learning experienced by learners with intellectual disabilities, watch the following video.

WATCH: TEDI 4 week 2 – Attitudes to learning

Creator: Anthea Hansen
Date: 2019
Duration: 11 minutes

The impact of barriers on caregivers

As these barriers demonstrate, lifelong care is inevitable for persons with SPID and they need a high level of support to access services and participate in societal activities (**Modula, 2022**). Caregivers play a pivotal role in this regard.

Caregivers are defined as individuals who provide care to any person who is unable to provide care for themselves. They can provide services formally or informally. Unpaid caregivers, such as the parents and family members of children with disabilities, provide informal services. Caregivers who are paid, such as staff at special care centres, provide formal services (**Moosa-Tayob & Risenga, 2022**). Primary caregivers of persons with SPID are typically solely responsible for providing support.

Due to the high level of ongoing support required by persons with intellectual disabilities, caregivers can feel very burdened, resulting in high levels of stress (**Modula, 2022**). Caregivers are also affected by the barriers affecting those with intellectual disabilities, which can exacerbate the level of burden and stress levels they experience and have a potentially negative impact on their own quality of life. This could, in turn, influence the quality of care they provide persons with intellectual disabilities (**Modula, 2022**; **Kleintjes et al., 2020**).

In our discussion on the history of intellectual disability at the start of this chapter, we highlighted some of the negative beliefs communities hold about persons with intellectual disabilities. This kind of stigma in communities with high levels of violence can result in caregivers fearing for their safety and for the safety of their own children as well as those they are caring for (**McKenzie et al., 2013**).

State grants for care dependency and disabilities are frequently the only source of income for households with children who have intellectual disabilities. In some cases, due to the small amount received in these grants, caregivers need to utilise their own limited resources in order to cover additional expenses like transportation, making participating in activities like learning, working and getting healthcare services difficult. Because of the frequently restricted financial resources caregivers have, both the person with an intellectual disability and their caregiver are unable to participate actively and equally in society, which has an effect on their health and welfare (**Modula, 2022**; **Mkabile & Swartz, 2020**).

Despite the fact that policies for persons with intellectual disabilities do not always translate into practices, their needs are taken into consideration. Caregivers' needs, on the other hand, are seldom considered. Caregivers report elevated levels of stress which are made more difficult by these barriers and do not receive support to lessen the level of caregiver stress (**Mkabile et al., 2021**). In their daily lives, they can feel abandoned and unsupported by healthcare providers, government and their communities. The wellness of the person with an intellectual disability can also be put at risk as a result of a decline in the caregivers' mental and physical health caused by a lack of assistance. Financial, social and emotional support should be given to caregivers and the care recipient in order to promote their well-being (**Moosa-Tayob & Risenga, 2022**).

Research demonstrates that mainstream healthcare providers' stigmatising behaviours can prevent people with intellectual disabilities from accessing the quality care and education they are entitled to (**Mkabile & Swartz, 2020**).

REFLECTION

In this reflection activity, Marlene le Roux shares the intimate details of her experiences as a mother of a child with an intellectual disability – her experiences with the medical fraternity, religious communities and the emotional highs and lows.

A huge barrier was how the medical fraternity reacted, like the doctor very coldly told me that I must put Adam in a home. I can still feel, I can still taste. I know exactly the day, the date, the time.

How the medical fraternity reacted, each one acted separately and not in coordinated, holistic way. I received advice and information in a fragmented way. For example, the speech therapist would tell me I must feed Adam in this way to stimulate him so that he can make sound. I would then go to occupational therapists that would show how to use the mouth in order to stimulate inside. From there, I would go to the physio, and get different advice.

And when you go home as a mother, you feel so despondent because one will say you must use the spoon in this way. The tongue you need to press down, the finger, you must… At the end when you go home, you just do your own thing because, number one, you feel so tired.

Secondly, you feel sometimes so despondent because what they never asked you as the mother is, how do you feel? How did Adam respond to the treatment that Adam and you had or you had as the carers as well? So the fragmentation of the medical fraternity should be much more a team approach, holistic approach. Where family members, where caregivers can be given specifically advice together in order for the specialist to work together in a team so that after the two hours that you spend with all these therapists, that you as a team that goes home where family members can understand what is nutrition, what must be mashed.

With regards to the hospital, that we frequented, I found that even the staff themselves were not treated and trained properly how to deal with a person who's extremely and profoundly disabled. People didn't talk to him; they ignored him and Adam fully sensed who was around him.

When he was hospitalised, I used to stay 24 hours a day with him. Why? To help with feeding him, turning him every two hours, because he couldn't talk or ring a bell.

Also being disabled myself, people were asking me straight in my face. Why did you have a second child? Look what happened to you.

People used to come and pray. And I need to say this is not a prayer thing. I've accepted Adam. And I loved him unconditionally. Some of my own family members, I had no clue of the challenge that I faced every day, giving medicine, getting him to the physiotherapist, the speech therapist, feeding him, which took two hours every time.

To hear the rest of Marlene's story, watch the full interview on the **OpenUCT** website.

REFLECTION

Think about Marlene's experiences as shared and reflect on the importance of the family-professional partnerships for caregivers and their children with intellectual disabilities.

Conclusion

Children and adults with SPID will never attain full independence, unlike those with milder forms of intellectual disability, and are in need of lifelong care. This means that we cannot consider their well-being without thinking about the well-being of their caregivers. This is why we talk about circles of care and education. Just as the child will need support to flourish throughout their lives, so too do their caregivers need support – circles around each other that allow the child to achieve the best quality of life and to reach their own and full potential. These circles of care are critical in supporting the education of children with intellectual disabilities.

The learner has an influence on these circles of care and is affected by what happens within these circles of care (**Adnams, 2016**). In the **next chapter**, we will further explore the concept of circles of care along with implementation of UDL to support learners with intellectual disabilities and the importance of human rights for these learners.

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chapter 21

Disability Studies in Inclusive Education

Learning support, curriculum adaptation and human rights for learners with intellectual disabilities

Chantal Samuels

Chapter learning outcomes

After completing this chapter, you will be able to:

- Describe the different kinds of learning support needed for learners with intellectual disabilities to participate in education.
- Identify barriers to learning experienced by learners who have intellectual disabilities, particularly those with severe to profound intellectual disability (SPID).
- Apply teaching strategies for inclusive learning in your own educational context for learners who have different levels of intellectual disability.
- Analyse how the principles of Universal Design for Learning (UDL) can be used to create conducive learning environments for learners who have intellectual disabilities.
- Explain the importance of human rights and legal issues for learners who have intellectual disabilities, particularly those with SPID.

Preparatory activities

WATCH: The moral significance of being human

Creator: The Malta Foundation for the Wellbeing of Society
Date: 2018
Duration: 8 minutes

WATCH: Peter Singer: I disagree with The Universal Declaration of Human Rights

Creator: Premier Unbelievable?
Date: 2018
Duration: 8 minutes

This video may be upsetting to some viewers.

REFLECTION

In a *Guardian* interview, Peter Singer states:

Just as we accept that race or sex isn't a reason for a person counting more, I don't think the species of a being is a reason for counting more than another being. What is important is the capacity to suffer and to enjoy life. We should give equal consideration to the similar interests of all sentient beings. Defenders of speciesism argue that humans have a special rational nature that sets them apart from animals, but the problem is where that leaves infants and the profoundly intellectually disabled. Instead of defending the idea that all humans have rights but no animals do, we should recognise that many things we do to animals cause so much pain and yet are so inessential to us that we ought to refrain. We can be against speciesism and still favour beings with higher cognitive capacities, which most humans have – but that is drawing a line for a different reason. ***If there are animals that have higher cognitive capacities than some humans, there's no reason to say that the humans have more worth or moral status simply because they are human.***

Do you agree with the argument for animal rights put forward by Peter Singer? How do you feel about the statement highlighted in bold above?

Introduction

As discussed in **Chapter 20**, there are different types and levels of intellectual disability which require different degrees and types of support. The kind of support required is unique to every child and varies in intensity, depending on the need of the learner. Supporting learners with intellectual disabilities requires family-school partnerships and a collaborative effort between government departments (**Adnams, 2016**).

In this chapter, we focus on children with intellectual disabilities, recognising that they can learn when they are given the right opportunities to do so, but are often the most neglected of children, including the disabled, in the education system. With a focus on the South African context, we will gain an understanding of the kinds of support that can help learners with intellectual disabilities to learn. We will also consider a number of complex factors relating to their human rights.

Learning support to address barriers to learning encountered by learners with intellectual disabilities

Learners with intellectual disabilities is a much neglected cohort within the South African educational system (**McKenzie et al., 2018**).

The South African Department of Basic Education (DBE) (**2018**) Draft National Guidelines for Resourcing an Inclusive Education System stipulates that special schools are required to provide support in the following ways:

- Provision of specialist services by specialised professional staff.
- Curriculum differentiation, including adjustments and accommodation in assessment.
- Provision of specialised learning and teaching support materials and assistive technology devices.
- Training and mentoring of teachers, managers and support staff.

Despite these policy efforts, issues remain around the implementation of these policies, particularly for learners with SPID.

In South Africa, while some learners with intellectual disabilities attend special schools, many learners with SPID or multiple disabilities are not accepted at special schools. They are therefore forced to either remain home or attend informal special care centres formed by their guardians. These special care centres are valuable, but are mainly focused on caring for, rather than educating, learners. This means that many learners with SPID are denied their right to formal education (**Taylor et al., 2016**).

In the shift towards an inclusive approach, mainstream schools make adaptations so that they can function as "full service schools" and accommodate learners with mild to moderate intellectual disabilities. The process of deciding whether a learner with an intellectual disability attends a special school or a full service school, entails an important conversation between parents, teachers and the learner. Many special schools find themselves accommodating an increasing number of learners with mild intellectual disabilities whose needs have not been met in mainstream schools (**Taylor et al., 2016**).

GLOSSARY: Full service schools

Full service schools are ordinary mainstream schools that are inclusive and welcoming of all learners in their cultures, policies and practices. "Full service schools increase participation and reduce exclusion by providing support to all learners to develop their full potential, irrespective of their background, culture, abilities or disabilities. These schools should be strengthened and orientated to address a full range of barriers to learning in an inclusive education setting to serve as flagship schools for full inclusivity" (**Taylor et al., 2016, p. 56**).

An individual support plan (see Table 1) is useful in determining the areas in which the learner requires support and the degree of support they require in navigating their journey through a learning programme (**Teacher Empowerment for Disability Inclusion [TEDI], 2019**).

Table 1: Areas of support and factors for consideration in developing an individual support plan

Area of support	Factors for consideration in individual support plans
Educational	Degree of support needed during exposure, exploration, attainment and participation in activities (e.g. hand-over-hand support to explore toys).
Functional	Degree of support needed for the learner to be mobile or for communication purposes (e.g. requires walking frame to walk 10m).
Activities of daily living	Degree of support needed for dressing, toileting and feeding (e.g. holding a cup with handles).
Behavioural	Details about the learner's fixed routine and daily programme, use of quiet areas, etc.
Medical	Details about medication, referrals to doctors, liaison with parents, etc.
Assistive devices	Details about the checks, maintenance, review and referral of assistive devices to the Department of Health and other providers.
Classroom	Details about the use of classroom elements (e.g. ability grouping available equipment and resources, and navigating layout of classroom areas).
Centre	Details about equipment (e.g. ramps, nappy changing areas and carer-child ratio).
Family and carer	Requirements for counselling, support groups and workshops.

For learners with SPID, developing an individual support plan is particularly important and it is a team effort requiring contributions from the learner, the carer, family members, therapists, doctors and social workers. The collective contribution facilitates the development of a realistic plan that identifies how the learning programme can be adapted according to the needs of the learner (**Bosch, 2016**).

Learning support for learners with mild to moderate intellectual disabilities

Learning support for learners with mild to moderate intellectual disabilities will not be covered in this section.

We are focusing on the support needs of learners with SPID. The learners with mild to moderate intellectual disabilities might not have the same support needs. For further information on the support needs of learners with mild to moderate intellectual disabilities, please refer to Kurth (**2013**).

Learning support for learners with SPID

"**The Severe to Profound Intellectual Disability: Circles of Care and Education**" Massive Open Online Course (MOOC) highlights the following different kinds of support needed by learners with SPID:

- **Emotional** support to foster a sense of acceptance.
- **Financial** support, including resources such as assistive devices and disability grants.
- **Physical** support with daily activities, such as eating meals.
- **Learning** support in smaller classes that provide educators with the opportunity to provide more supervision.
- **Social** support to feel included by others.
- **Legal** support through policies the protection of their rights.

The purpose of support is to ensure that learners can fully participate in society and make use of their abilities, resources and opportunities. For learners with SPID, it is important to note that their needs, the kind of support required and duration of support varies. While many may require high levels of constant support on a permanent basis, others may need less. Support should be tailored according to the individual's needs, age and frequency required (**Coetzee & Johns, 2016**).

This group is heterogeneous and divided into three broad learner groups according to their ability to participate in daily activities; namely: awareness, transitional or interactive (**DBE, 2016a**). Table 2 provides an overview of the groups, examples of learner behaviour that characterise these groups and the kinds of assistance learners may require.

Table 2: Examples and types of support required for learners with intellectual disabilities

Awareness group	Transitional group	Interactive group
Inactive, withdrawn and/or sleepy.	Smiles when smiled at and shows brief interest in toys.	Active and focused on the environment.
Needs full support to facilitate attention to the environment.	Needs assistance to maintain attention, respond and engage in activities.	Needs support and supervision.
Can be agitated.	N.A.	Ready to participate and open to learning.

Support needs can be met by various people. It is important that relevant role-players carefully assess the support needs of the learner and use their different perspectives and skills during all stages of someone's life (**McKenzie, 2019a**). Support needs to be provided within the local community, the wider community and in the broader social system as a whole (**McKenzie, 2019b**). These layers of support are what we refer to as the "circles of care" (Figure 1).

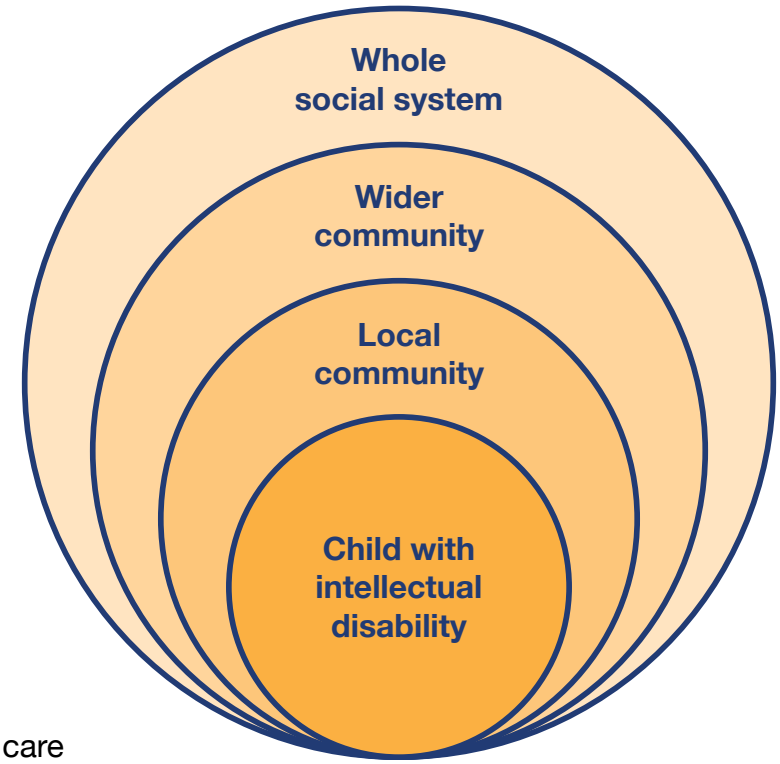

Figure 1: Circles of care

Figure 1 depicts the levels of support from the circles of care around the child. The child is at the centre of the circle. Family, carers, healthcare professionals and special-care centres form the local community. In the wider community, we have friends, neighbours, businesses and organisations. The social system includes policies and legal frameworks. The players in each of the circles are connected and affect each other. The learner has an influence on these circles of care and is affected by what happens within these circles of care (**McKenzie, 2019a**; **McKenzie 2019b**).

WATCH: Inclusive education for children with intellectual disabilities in Kenya

Creator: UNICEF Kenya
Date: 2017
Duration: 7 minutes

The use of assistive technology devices and specialised equipment should also be considered in developing an individual support plan.

Use of assistive technology devices and specialised equipment

Assistive technology devices are useful in supporting the development of learners with intellectual disabilities, in general, but play a particularly important role in ensuring that learners with SPID receive the support they require.

Independence and participation in teaching and learning activities can be increased for learners with SPID through the use of these devices, which compensate for learners' skill deficits or areas of disability and contribute to the development of their self-reliance and sense of independence. With the help of these devices, learners can work independently rather than being overly dependent on parents, siblings and friends. Assistive technology devices can be used to not only enhance learning, but also to improve their activities of daily living and, therefore, their independence (**TEDI, 2020**).

Table 3 presents a list of conditions associated with SPID and the supportive assistive technology devices and specialised equipment that can be used in each instance.

Table 3: Impairments and supportive assistive technology devices for learners with SPID (Adapted from: **TEDI, 2020**)

Conditions associated with SPID	Examples of suitable assistive technology devices and specialised equipment
Neurological and neurodevelopmental impairments	• Literacy software for reading and writing support • Mathematics development software • Text-to-speech devices • Sensory development resources
Cognition and learning impairments	• Mouse skills software • Keyboard skills software • Literacy and numeracy development software • Mind-mapping software
Communication impairment	• Portable voice amplifier • Message recordable devices • Picture symbol software • Text-to-speech devices
Learners who are D/deaf or hard of hearing, and/or blind or have low vision	For those who are blind: • Braille technology • Low- and mid-tech devices for tactile learners • Non-optical low vision devices • Video magnifiers For those who are D/deaf: • Frequency modulation system • Induction loop system • Personal sound amplification device • Remote interpreting

Using UDL and curriculum adaptation to create conducive learning environments

Meaningful participation of all students in general or mainstream education can occur through the use of a range of strategies. Applying the principles of UDL ensures that the means of instruction employed by teachers support different ways of learning, expressing and engaging, thus facilitating greater opportunity for educational success for the learner with an intellectual disability (**Kurth, 2013**).

General curriculum adaptation through the application of UDL principles should be employed in a classroom to avoid students feeling isolated. Employing general curriculum adaptation principles such as UDL allows educators time to focus on creating specific adaptations, bridging the gap between skills and needs. Educators do, however, also need to be careful not to over-adapt, which could result in the stigmatisation of the learners who require adaptation (**Kurth, 2013**).

WATCH: UDL: Principles and practice

Creator: National Center on Universal Design for Learning
Date: 2010
Duration: 7 minutes

READ: A unit-based approach to adaptations in inclusive classrooms

Author: Jennifer A. Kurth
Year: 2013
Estimated reading time: 90 minutes
File size: 219 KB

For learners with intellectual disabilities, it is important to employ a general curriculum adaptation strategy such as UDL to create specific adaptations and include the use of technology (**Kurth, 2013**). Table 4 provides examples of ways in which teachers can give effect to the UDL principles of multiple means of representation, action and expression, and engagement, which can benefit learners with intellectual disabilities. This table is drawn from presentation by Taryn du Toit from Cape Mental Health.

Table 4: Examples of how to effect principles of UDL

UDL principle	Examples of how to effect principles of UDL
Multiple means of representation	• Clear and simple language • Select culturally sensitive activities and materials • Use visuals/gestures and demonstrations • Use concrete and tangible objects, hands-on activities • Break down the curriculum into components • Use repetition regularly • Use different sensory inputs (visual, auditory) • Scaffolding (guidance and support given graded over time)
Multiple means of action and expression	• Adapt assessments: use images, scribing, laptop • Vary assessment questions: MCQs, short answers • Create different assessment options: oral/poster/essay • Allow time for their response • Encourage interaction, group work • Use role-playing, games and demonstrations • Adapted response materials: cloze statements, word banks, etc. • Augmentative and alternative communication
Multiple means of engagement	• Minimise distractions • Paraphrase what they are saying • Provide immediate feedback on their progress • Work within their attention span range • Be positive, use humour and make learning fun • Encourage mutual respect and trust • Build a rapport with them • Encourage participation and feedback from learners • Use activities and role-play and involve the learners • Set goals with the learners • Group work activities or working in pairs • Give regular breaks • Create tension free and open environment • Make the learning relevant and relatable to them • Assistive devices, specialised equipment and teaching and learning support

The development of individual support plans can be combined with and integrate the use of relevant technologies to support the inclusion and the individualisation of learning paths for students with intellectual disabilities (**Frolli et al., 2020**).

Technology plays an important role in creating an accessible curriculum for learners with intellectual disabilities. Table 5 provides examples of assistive technology devices for learners with severe to profound intellectual disabilities that enable the implementation of UDL principles.

Table 5: Assistive technology devices for learners with SPID that enable implementation of UDL principles (Source: **TEDI, 2020**)

UDL principle	Assistive technology devices
Representation	**High-tech**
Enabling multiple ways of presenting content	• Literacy development software • Specialised e-reader • Picture symbol software
Expression	**Mid-tech**
Enabling learners to communicate what they know and can do through various means	• Alternative large keyboard • Colour-coded mouse • Mouse skills software • Talking calculator
	High-tech
	• Multimedia player • Literacy, numeracy, science, creativity curriculum activities software • Simulation software for maths, science, technology, computing, automotive skills • Inclusive interactive music system
Engagement	**Mid-tech**
Enabling the facilitation of choices of learning activities to cater for the varied abilities of learners	• Screen-reading software • Literacy, numeracy, science, creativity curriculum activities software • Mind-mapping software • Simulation software for maths, science, technology, computing, automotive skills • Inclusive interactive music system

UDL emphasises the importance of building expert learners in any context. Learning and expertise are continual processes that involve practice, adjustment and refinement. CAST defines expert learners as purposeful and motivated, resourceful and knowledgeable, and strategic and goal directed (**CAST, 2018**). Learners can become expert regardless of the severity of their support needs. It is important to note that being an expert learner is not about mastering content, but rather about turning everyday experiences into opportunities to learn and develop. Educators who recognise that their learners are resourceful, strategic and motivated build on students' expertise and in this way encourage mastery of knowledge (**Hartmann, 2015**).

Hartmann (**2015**) provides the following example of Marcus, a learner with an intellectual disability who can been described as an expert learner:

> *Marcus, a soft-spoken teenager was born prematurely. He is a tall, happy guy with multiple support needs. He has multiple impairments, including intellectual disability, visual impairment, seizures, cerebral palsy, and speech and language impairment. Despite his impairment, his teacher recognises that Marcus is an expert learner because he actively experiences life and learns from it. He is purposeful in how he seeks out and finds his close friends on entering the room. He is resourceful in how he uses touch to explore and understand new materials and spaces around the classroom. He is strategic in how he verbally asks for preferred activities but does not respond to questions about activities he didn't enjoy.* (**Hartmann, 2015**)

Table 6 presents expert learner characteristics and examples of Marcus as an expert learner in practice.

Table 6: Expert learner characteristics and examples in practice (Source: **Hartmann, 2015**)

UDL principle	Expert learner characteristics	Examples of an expert learner in practice
Multiple means of engagement	Purposeful, motivated learners	Marcus enjoys being with his peers and learns best when paired with a friend. He listens closely to their words and likes to repeat back what they've said.
Multiple means of representation	Resourceful, knowledgeable learners	Marcus learns best by tactually exploring materials. When auditory information is paired with tactual information, he learns new concepts.
Multiple means of action and expression	Strategic, goal-directed learners	Marcus clearly and skilfully communicates his preferences. He vocalises loudly and clearly when he knows his communication partner and is given two or three choices.

ACTIVITY

Estimated time: 25 minutes

Plan a lesson for a class you are currently teaching (or a class you have previously taught in) on one of the following two topics:

- Keeping safe during an emergency.
- Making the world around us a cleaner place for all.

Your class includes three learners with different levels of intellectual disability. One has severe cerebral palsy and profound intellectual disability and uses a wheelchair, as she cannot move her muscles in her arms and legs. She also has difficulty speaking. The other two learners joining your class have moderate intellectual disabilities and full mobility.

1. Outline the teaching strategies you will use to include all learners, highlighting the practical ways that you will implement UDL guidelines so that all learners in the class will benefit.
2. Outline the teaching strategies you will use to include all learners (i.e. the specific adaptations and support you will provide during this lesson).

You can do this activity individually or in small groups of three to four people.

The importance of human rights and legal issues for learners with intellectual disabilities

Despite international policies and frameworks, such as the *Convention on the Rights of Persons with Disabilities* (2006) and the social model of disability, it has been argued that the limited gains made through a rights-based approach to disability have been less effective for people with intellectual disabilities than people with other disabilities. Bozalek et al. (2014) point out that this can be attributed to the disability movement's focus on autonomy

and independence, rather than care. In this context, care has been construed as a form of domination and power exercised by families and service providers over people with intellectual disabilities (**Bozalek et al., 2014**).

Human rights approaches for intellectually disabled people have not given sufficient consideration to the complexity of rights claims made by and on behalf of people with intellectual disabilities. Human rights becomes problematic when it assumes that all individuals are free, equal and independent. Applying this criteria to people with intellectual disabilities is problematic; in that if the person is incapable of knowing the law, the person cannot be free. Equality requires that the person possess reason and independence requires that the person is not dependent on another. Many people with intellectual disabilities have a lifelong dependency on others (**Bozalek et al., 2014**).

As a result of the limitations faced around cognitive ability and dependency, learners with SPID have traditionally been excluded from education on the basis that they are ineducable. In 2010, the Western Cape Forum for Intellectual Disability challenged this notion through litigation against the government (**McKenzie et al., 2017**). The court declared that every child in South Africa who has SPID has the right to education and must have access to basic, quality education. As a result, the government was directed to take reasonable measures in order to give effect to the rights of learners with SPID, including: affordable, accessible, quality education; adequate funding and facilities; and training and remuneration for staff at special care centres (**McKenzie et al., 2017**).

Steps have been taken and policies such as the DBE *Daft Policy for the Provision of Quality Education and Support for Children with Severe to Profound Intellectual Disability* (**DBE, 2016b**) "recognise[s] the complex needs of these children and their families who require a person-centred, holistic and integrated approach that will ensure the maximum development of each child's individual potential" (**DBE, 2016b, p.15**).

Challenges with disparities in policy implementation

The South African government has developed educational policies to support learners with disabilities, but many do not adequately consider the inclusion of learners with intellectual disabilities, particularly SPID. This is largely due to an inadequate understanding of these learners' needs. A disparity between the policies and their practical implementation resulting from a failure of leadership has also resulted in inadequate support within educational systems promoting education for all (**McKenzie et al., 2018**).

Disparity between policy and implementation has also resulted from a lack of funding, which has led to a lack of resources for the accommodations required to meet the needs of learners with

intellectual disabilities. In addition to disparity between policy and implementation, there is also disparity between policies that pertain to learners with intellectual disabilities versus learners with other kinds of disabilities. The consequence thereof is inadequate teacher training and a lack of opportunities for teachers to advance their disability practice. The lack of academic teacher-training programmes results in teachers having negative perceptions of learners with intellectual disabilities and a lack of understanding of these learners' needs. Limited teacher training programmes also make curriculum adaptation challenging, resulting in the curriculum not being inclusive of the needs of learners with intellectual disabilities and therefore posing an additional barrier to learning. For learners with intellectual disabilities, curriculum adaptation is imperative to their inclusion in the education system (**McKenzie et al., 2018**).

By now, you should be familiar with international and local policies recognising the rights of all children to quality education. Even though these policies and frameworks are explicit in the acknowledgement of the right to education for all, many children with intellectual disabilities remain excluded from mainstream education and the special education system (**WCFID Right to Education Task Team, 2016**).

While we continue to advocate and lobby for the rights of learners with intellectual disabilities to inclusion, learners with SPID have yet to be accommodated in terms of their needs and rights to education and development.

WATCH: TEDI 4 week 4 – Ethics of care-giving and receiving

Creator: Judith McKenzie
Date: 2019
Duration: 10 minutes

READ: Rights discourses in relation to education of people with intellectual disability: Towards an ethics of care that enables participation

Author: Judith McKenzie & Catriona Macleod
Year: 2012
Estimated reading time: 2 hours
File size: 223 KB

ACTIVITY

Estimated time: 20 minutes

Once you have read the paper by McKenzie and Macleod (**2012**) above, make notes on your reflections. The methodology is rather complicated, so focus more on the discussion and findings.

Conclusion

In this chapter, we explored the barriers experienced by learners with intellectual disabilities, as well as the role societal attitudes and policies play in excluding learners with intellectual disabilities from receiving quality education. We discussed circles of care and the important role family, neighbours, community, health professionals and policy-makers play in providing learning support to learners with intellectual disabilities, particularly those with SPID. We also took a look at the types of assistive technology devices and specialised equipment available as a form of learning support.

We showed how UDL principles can be used to benefit the development of learners with intellectual disabilities. Given the right opportunities and support, learners with intellectual disabilities are able to develop and meaningfully participate in education and society as a whole.

Finally, we explored the complexities of adopting a rights-based approach to the inclusion of people with SPID and some of the tensions between policy development and implementation.

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section H

Disability Studies in Inclusive Education

Physical impairment

chapter 22

Disability Studies in Inclusive Education

Overview: Physical impairment and classroom adaptation

Dureyah Abrahams

Section learning outcomes

After completing this section, you will be able to:

- Describe physical conditions that may lead to impairment and how they present.
- Have working knowledge of the International Classification of Functioning, Disability and Health (ICF).
- Identify causes of physical impairment.
- Demonstrate a deeper level of insight into cerebral palsy.
- Discuss the impact of different types of impairment on children in the classroom, with a focus on physical impairment.
- Examine the effect or impact of physical impairment on children in the classroom.
- Identify barriers to learning experienced by learners with physical impairment.
- Apply teaching strategies for inclusive learning in their own educational context for learners with physical impairments using the principles of Universal Design for Learning (UDL).
- Implement classroom adjustments and adaptations that will promote the active participation of children with physical impairments in the class.

Introduction

In this section, we continue to discuss the impact of different types of impairment, with a focus on physical impairment. We discuss the ICF and provide insight into cerebral palsy (CP) and the identification of barriers to learning experienced by learners with physical impairment. Also, we describe teaching strategies for inclusive learning using UDL. Furthermore, we demonstrate how to implement classroom adjustments and adaptations to promote active participation of children with physical impairments in the class.

Learners with physical impairments have experienced narrow chances to enjoy school environments or practices due to fewer priorities given by educational providers to issues that may support the disabled especially in low-and-middle income countries in areas such as curriculum adaptations, teaching and learning materials, infrastructure, and special programs

such as sports and games. A learner with physical impairment may have difficulty with managing the distance between different learning activities, with carrying materials, notetaking, practical activity and may take a longer time to ask or answer questions. Learners with physical impairments have often not had their human rights fully respected, as they were always seen as “less than” and “othered”. Basic human rights were not provided, such as the right to education at any institution they choose, being excluded from spaces and activities, and not being accommodated for in the classroom and society.

In the following reflection, I share my personal experiences from school as a person with physical impairment.

Insider view: Perspectives on education

To create an inclusive society, we need to talk about the disabled experience in an empathetic way, as this is best to rid the world of the stigma and discrimination it has for disabled people. We need to empathise with their challenges in order to decrease the barriers they face and create a more inclusive society.

Family figures such as parents, grandparents and siblings are often the disabled student’s first and greatest support system. They often have to advocate for inclusion for the child in school and other spaces where parents are the ones who discuss with the educators the needs of their child and how best to support them. By doing this, the parents also educate and raise awareness of disability at the school.

When schools cannot or refuse to include a disabled child, it is often the parent who has to fight for inclusion and provide the additional support for the child. Family members become this pillar of support and keep the child motivated and dedicated to stay in school and become successful. Disabled students are often othered and are the target for bullies. Disabled children can be discriminated against and stigmatised due to their differences and this often leads to low levels of social inclusion at school. Thus, families have to be a great means of social support when disabled students lack other social support means when they do not have many friends or are socially excluded.

Disabled students need far more financial support than non-disabled students for their additional needs, such as assistive devices and health care. Disabled students also find that being employed is far more challenging than their non-disabled peers. These all lead to families of disabled persons having a greater financial burden and needing to financially support the disabled student more than they may for non-disabled youth.

Learners with physical impairments often find themselves in inaccessible school environments and have to make their way in spaces that favour able-bodied people. Many schools are not accessible for wheelchairs and there are many barriers for those who are physically impaired. Desks do not fit wheelchairs or mobility devices, hallways are too narrow, classes are spaced far apart, lockers are inaccessible, cafeterias and lunch tables are inaccessible, and bathrooms have no accessible stalls.

Disabled students thus have to exert themselves to be included and accomplish tasks by walking far distances, maneuvering in cramped spaces and being in unsafe environments. These barriers result in many painful experiences, exerting a lot of physical effort, risking injury and being in a state of discomfort. If they cannot make their way in an inaccessible environment, they risk being left out and excluded from spaces and activities.

Inaccessibility, such as stairs without an elevator to a wheelchair user, symbolises and acts as a reminder that they are not welcome or considered in that space. Disabled students frequently face this in classrooms and playgrounds.

Disability is often met with much discrimination and stigma, as many are afraid of differences and are ignorant of disability. This discrimination often leads to social exclusion, where the disabled student is alienated and othered. Bullying is a leading cause of social exclusion for disabled students, as disabled students are often mocked and teased for their differences and additional needs.

REFLECTION

Estimated time: 15 minutes

Reflect on some of your personal life experiences in school and how you overcame the challenges you faced.

chapter 23

Disability Studies in Inclusive Education

The nature of physical impairment and its impact on learning

Kofi Nseibo

Chapter learning outcomes

After completing this chapter, you will be able to:

- Describe physical conditions that may lead to impairment and how they present.
- Have working knowledge of the International Classification of Functioning, Disability and Health.
- Identify causes of physical impairment.
- Demonstrate a deeper level of insight into cerebral palsy.
- Explain the importance of human rights and legal issues for learners with physical impairments.

Preparatory activities

READ: International classification of functioning, disability and health: An overview

Author: World Health Organization
Year: 2007
Estimated reading time: 90 minutes
File size: 131 KB

This reading will help you get a basic overview of the aims and underlying structure of the International Classification of Functioning, Disability and Health (ICF). Later in the chapter, we will discuss how to apply this conceptualisation in the context of academic barriers encountered by children with physical impairments.

READ: Getting to know cerebral palsy

Author: London School of Hygiene & Tropical Medicine
Year: 2021
Estimated reading time: 30 minutes
File size: 5.1 MB

Read the overview (page 4) of this parent and caregiver manual. It will serve to explain more in depth the need for a transgressive approach to education for learners with cerebral palsy.

Introduction

In this chapter, we continue to discuss the impact of different types of impairment, with a focus on physical impairment. We will also look at the experiences of students with physical impairments and how their disabilities impact on their learning. We shall begin with a definition of physical impairment and an overview of the ICF, after which we will discuss cerebral palsy (CP) as well as the importance of human rights and legal frameworks for learners with physical impairments.

What is physical impairment?

The World Health Organization (WHO) and World Bank (**2011**) define "physical impairment" as a disability that limits a person's physical capacity to move, coordinate actions or perform physical activities. It is also accompanied by difficulties in one or more of the following areas: physical and motor tasks, independent movement, and performing daily living functions. In the same vein, the UK Equality Act 2010 defines physical impairment as a "limitation on a person's physical functioning, mobility, dexterity or stamina" that has a "substantial" and "long-term" negative impact on that person's ability to perform normal daily activities (**S6(1)**).

In both of these definitions, **impairment** is seen as a problem in body function or structure; an **activity limitation** is a difficulty encountered by an individual in executing a task or action; and a **participation restriction** relates to a problem experienced by an individual in life situations. Thus, disability is a complex phenomenon, reflecting an interaction between features of a person's body and features of the society in which they live. As such, physical impairment is a condition that substantially limits one or more of an individual's major life activities – including self-care, receptive and expressive language, learning, mobility and self-direction (**WHO & World Bank, 2011**)

GLOSSARY: Disability

"Disability" is an umbrella term, covering impairments, activity limitations and participation restrictions. A person has a disability if they have **"a physical or mental impairment which has a substantial and long-term adverse effect on her or his ability to carry out normal day-to-day activities"** (**WHO & World Bank, 2011, p. 7**).

The effects of a physical impairment vary from person to person, depending on the nature of their condition. Some are serious on their own. Others may be mild but are made worse by other diagnoses. Physical impairment presents itself in various ways. Conditions like arthritis may make daily tasks difficult without any obvious external signs. Meanwhile, an amputee has clear signs of their disability. Both conditions impact the person's ability to perform normal daily living activities. When people think of physical disability, visible conditions are often what come to mind. Wheelchairs, walking sticks and injuries all tend to signal that someone has an impairment of some kind. Some visible disabilities are less obvious than others, but they are generally hard to miss. These factors demonstrate how complex and potentially problematic the definition of disability is; we therefore need a standard framework to describe and organise information on functioning and disability.

The International Classification of Functioning, Disability and Health

The ICF is a framework that describes and organises information on functioning and disability. It provides a standard language and a conceptual basis for the definition and measurement of health and disability. The ICF aims to provide scientific basis for understanding and studying health and health-related states, outcomes, determinants and changes in health status and functioning. It also aims to establish a common language for describing health and health-related states to improve communication between different users, such as health-care workers, researchers, teachers, education officials, policy-makers, and the public, including people with disabilities.

The ICF permits comparison of data across countries, health care disciplines, services, and time as well as providing a systematic coding scheme for health information systems (**WHO, 2001**). The ICF conceptualises a person's level of functioning as a dynamic interaction between their health conditions, environmental factors and personal factors. All components of the ICF framework of disability are important and any one of them may interact with another.

With regards to the nature and impact of physical impairments on learning, environmental factors must be taken into consideration, as they have a deep, wide-ranging effects, and may need to be altered. Figure 1 shows interactions between the components of the ICF.

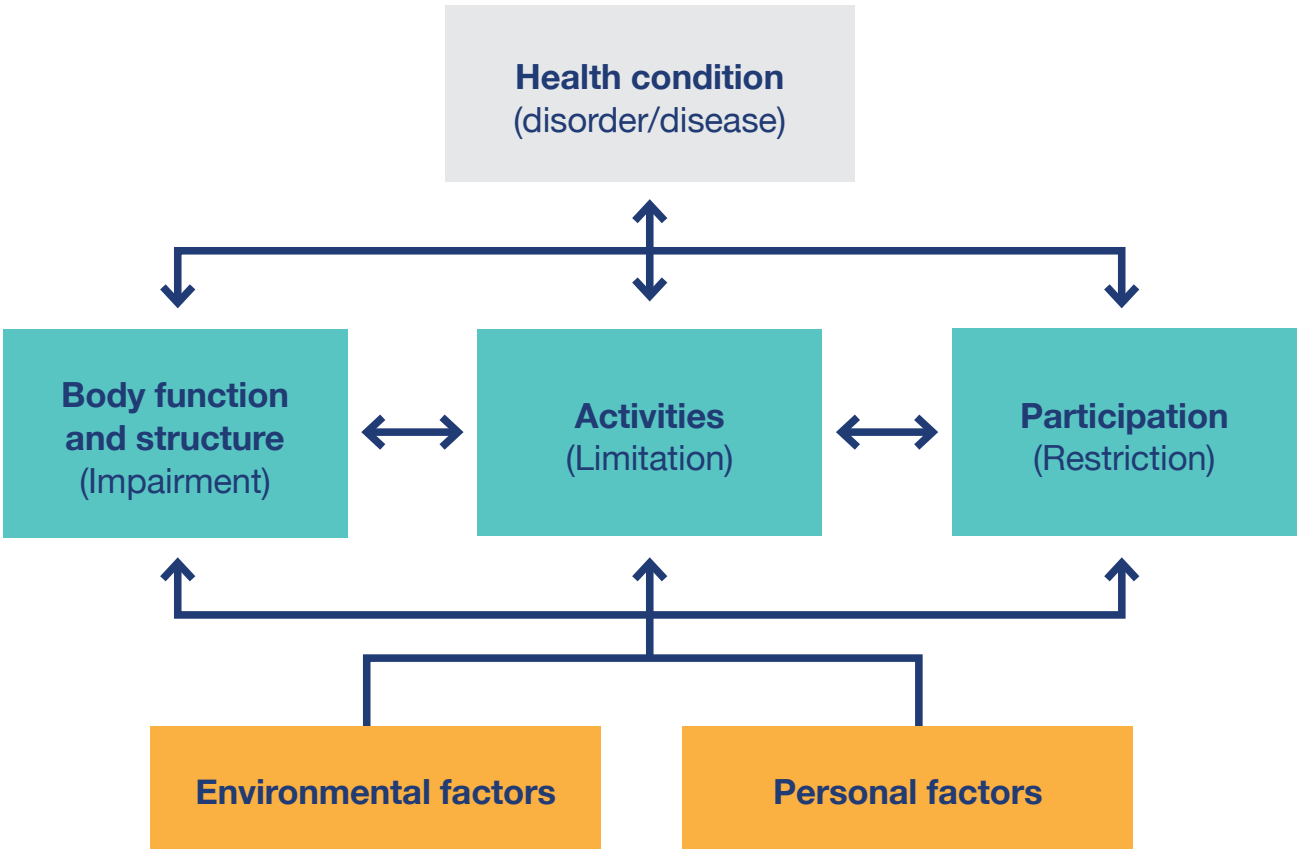

Figure 1: Interactions between the components of the ICF (Adapted from: **WHO, 2001**)

GLOSSARY: Definition of components of the ICF

Body functions: The physiological functions of body systems (including psychological functions).

Body structures: Anatomical parts of the body such as organs, limbs and their components.

Impairments: Problems in body function and structure such as significant deviation or loss.

Activity: The execution of a task or action by an individual.

Participation: Involvement in a life situation.

Activity limitations: Difficulties an individual may have in executing activities.

Participation restrictions: Problems an individual may experience in involvement in life situations.

Environmental factors: The physical, social, and attitudinal environment in which people live and conduct their lives. These are either barriers to or facilitators of the person's functioning.

Functioning: This is an umbrella term for body function, body structures, activities, and participation. It denotes the positive or neutral aspects of the interaction between a person's health condition(s) and that individual's contextual factors (environmental and personal factors).

Causes of physical impairment

The causes of physical impairment are varied and are usually grouped into two categories: hereditary/congenital and acquired.

Hereditary/congenital impairments refer to a person who was born with a physical disability or developed one due to inherited genetic problems, suffered an injury at birth, or has issues with their muscular development growing up. Genetic causes of physical impairment can include mutation of genes or be based on genetic incompatibilities between parents. The birthing process, also known as perinatal ethiology (which encompasses the entire time period of the birth), may, for instance, lead to prolonged lack of oxygen due to obstruction of the respiratory tract or injury to the brain during birth.

Acquired physical impairments could be due to an accident, infection or disease, or as a side-effect of a medical condition.

Causes of physical impairments can also be grouped into **communicable diseases** and **non-communicable diseases (NCDs).**

Communicable diseases (i.e. infectious diseases) such as lymphatic filariasis, tuberculosis, HIV/AIDS and other sexually transmitted diseases, neurological consequences of some diseases (such as encephalitis and meningitis), and childhood cluster diseases (such as measles, mumps and poliomyelitis) can have side-effects which cause to physical impairment.

NCDs (or chronic diseases) such as diabetes, cardiovascular disease, arthritis and cancer, cause the majority of long-term impairments. The increase in NCDs, which is currently observed in all parts of the world, will have a profound effect on disability. Lifestyle choices and personal behaviour factors, such as obesity, physical inactivity, tobacco use, alcohol consumption and illicit drugs, that lead to NCDs are also becoming major contributing factors. Environmental factors, such as air pollution, occupational disease, poor water supply, poor sanitation and hygiene, as well as malnutrition also contribute to physical impairment.

Some conditions that may lead to physical impairment include acquired brain injuries, epilepsy (a neurological condition), cystic fibrosis (a genetic condition), multiple sclerosis (an autoimmune condition), spina bifida (a developmental birth defect) and cerebral palsy (CP).

Getting to know cerebral palsy

CP is the most common motor disability in childhood. “Cerebral” means related to the brain, while “palsy” pertains to weakness or problems with using one’s muscles. CP is caused by abnormal brain development or damage to the developing brain that affects a person’s ability to control his or her muscles.

Let us consider the following features of CP:

- CP is a group of disorders that affect a person’s ability to move and maintain balance and posture.
- CP affects movement and muscle tone or posture. It is caused by damage that occurs to the immature, developing brain, most often before birth.
- CP is a condition marked by impaired muscle coordination (spastic paralysis) and/or other disabilities, typically caused by damage to the brain before or at birth.

How to identify a child with cerebral palsy

Identifying CP in the early stages of it is difficult, as it often manifests over time. The observation of slow motor development, abnormal muscle tone and unusual posture are common initial clues to the diagnosis. Some early warning signs include:

- Delay in meeting motor-skill milestones (e.g. head control, sitting, crawling).
- Recurrent seizures.
- Stiffness or floppiness of the body.
- Poor sucking/feeding ability.
- Persistently fisted hand or not using one hand well (asymmetry).
- Decreased rate of head growth.
- Difficulty in seeing and hearing.

The risk is highest if the child's mother has a history of a difficult birth or pregnancy and if the child needed resuscitation/help to breathe at delivery, was born too early, or had a serious illness as a newborn baby. It is often a child's caregiver who first notices that the child is not developing in the same way as other children of the same age. Any concerns raised should be actively listened to.

Human rights and legal frameworks for learners with physical impairments

Education for all children is a right. Most children with physical impairments do, however, not enjoy this right to education fully, particularly in Sub-Saharan Africa. The Universal Declaration of Human Rights stipulates that everyone has the right to a quality education, while the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) makes reference to this right for disabled children and adults, including those with physical impairments. For example, Article 24 of the UNCRPD requires that the right to education of disabled people must be realised without discrimination and based on equal opportunity between persons with and without disabilities.

Importantly, "education" here refers not only to schooling, but also to tertiary education, vocational training, adult education and lifelong learning. The worldwide call to action, aiming to end poverty, protect the planet and ensure peace and prosperity for all was enshrined in the United Nations (UN) Sustainable Development Goals (SDGs). Unlike the UN's Millennium Development Goals, the SDGs make specific reference to disability, with specific reference to guaranteeing inclusive and equitable education for all through providing necessary assistance for disabled children and adults.

All three of these UN frameworks carry implications for improving the life-chances of disabled people, including clear directives to governments on how this can be achieved. In the case of learners with physical impairments, the negative social attitudes that disabled people face result in the systematic oppression, exclusion and discrimination (**Lang, 2007**; **Nseibo, 2021**). Learners with physical impairments are often restricted by the school and community

environments at large, as they are not universally accessible. Legal frameworks should be enforced to make schools inclusive for all learners.

When talking about inclusive education for learners with physical impairments, the extent to which inclusive schools can physically and pedagogically include children with impairments and special educational needs also depends largely on the physical environment (**Ackah-Jnr & Danso, 2019**; **Nseibo, 2021**).

CASE STUDY 1: The story of Mama Peace

Mama Peace (P) is a 51-year-old woman who grew up in rural Mfuleni near Cape Town in South Africa. Her son, Kojo, is 21 years old and presents with bilateral lower limb deformities. His diagnosis did not show whether his impairment was hereditary or acquired. He is cognitively intact and moves with the aid of bilateral elbow crutches. Crutches have been the type of mobility aid that he has used since he was a child and he has never used a wheelchair.

Mama P recalls her biggest challenge in life as having a husband from her teenage years and losing him because she gave birth to a disabled child. She stated that: "My husband ran away from me because of my disabled child." She did not receive comfort from her family and the community. This is because she was nicknamed "the mother of the cripple" in the community. Mama P sent Kojo to three different full-service (mainstream) schools and was denied admission. The reason was that the schools were not environmentally friendly for Kojo. Another reason was that teachers were not trained to teach children with disabilities. Mama P was referred to a special school as the best space for her son. Unfortunately, there was no special school around Mfuleni. The nearest special school was about 100km away.

Kojo finally gained admission to grade one at Katanka Primary School (a full-service school) at Badale, near Mfuleni. Unfortunately, Kojo dropped out of school at Grade 4. It was believed that the school was not supportive amidst various environmental barriers. Apart from the barriers in the school, Mama P also had financial difficulties.

The story of Mama P shows that her son was denied educational rights despite the numerous legal frameworks that are there to protect all learners of school-going age. Kojo was completely oppressed, discriminated against and the community was not giving the necessary support to the family.

Conclusion

Disability is not just a health issue; it is the interaction between individuals with a health condition and a range of personal and environmental factors. Environmental factors (such as negative attitudes and inaccessible transportation and public buildings) as well as limited social support all impact on the learning of the child.

While literature shows that there has been some progress over the past half-century towards equity and inclusion of disabled people across the world, there is still much to do. In fact, many scholars regard the achievements of the global disability movement thus far as disappointing. Exclusion from education is only one aspect of the social oppression of learners with physical impairment; but it is a crucial one and remains endemic, particularly across a host of societies in the Global South. To holistically push the agenda of the inclusion of learners with physical impairments, human rights frameworks are but one important strategy for driving change, which requires community mobilisation, the empowerment of disabled people through inclusive development, and cultural shifts towards the inclusion of disabled lifestyles.

Overcoming the difficulties faced by learners with physical impairments requires interventions to remove environmental and social barriers. In the **next chapter**, we shall discuss the impact of physical disabilities on learning and how to support learners with physical impairment in the classroom.

ACTIVITY

Estimated time: 20 minutes

Identify a learner with physical impairment at your school, describe the nature of the disability and discuss how you think the disability impacts on the learning of the child.

References

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chapter 24

Disability Studies in Inclusive Education

Classroom adaptation for physically impaired learners

Kofi Nseibo

Chapter learning outcomes

After completing this chapter, you will be able to:

- Describe physical conditions that lead to physical impairment and how they present.
- Examine the effect or impact of physical impairment on children in the classroom.
- Identify barriers to learning experienced by learners with physical impairment.
- Apply teaching strategies for inclusive learning in their own educational context for learners with physical impairments using the principles of Universal Design for Learning (UDL).

Preparatory activities

READ: Exploring the experiences of children and youth with mobility impairments in four basic educational settings in Ghana

Author: Kofi Nseibo
Year: 2021
Estimated reading time: 30 minutes
File size: 5.1 MB

Read the summary, recommendation and conclusion (pages 221–235) of this doctoral dissertation. During the session it will help you to understand in depth the need to place the learner with physical impairment at the centre of an inclusive schooling environment.

ACTIVITY

Estimated time: 20 minutes

List and explain three teaching strategies that you will use to promote inclusion of learners with physical disabilities using UDL.

READ: Training tools for curriculum development: Reaching out to all learners: A resource pack for supporting inclusive education

Author: UNESCO International Bureau of Education
Year: 2016
Estimated reading time: 20 minutes
File size: 2.4 MB

WATCH: I'm just like you!

Creator: Project: Just Like You
Date: 2017
Duration: 3 minutes

ACTIVITY

Estimated time: 15 minutes

Watch the video above which demonstrates the plight of children with disabilities who are trying to show everyone that they are "just like you". This should be a wake-up call to all non-disabled people to show that persons with disabilities are just like non-disabled people and must be given equal attention in all things.

For the activity, write one thing you would do to support a child with physical impairment in the class. Your answers may be related to:

- Arrangement of classroom tables and chairs.
- Physical pathways to the classroom and within the classroom.
- Classroom management.
- Arrangement of teaching and learning materials.
- Communication in the classroom.
- Good relationship with learners and their parents.

Introduction

A physical impairment is a physical condition that affects a person's mobility, physical capacity, stamina or dexterity. This can result from brain or spinal cord injury, multiple sclerosis, cerebral palsy, respiratory disorder, epilepsy, hearing and visual impairment, and other conditions.

Learners with physical impairment may have difficulties related to movement, posture (e.g. sitting, standing or walking), grasping or manipulating objects, communication, eating, perception or reflex movement. With support, learners with physical disabilities can function well in the classroom.

Every learner with physical impairment has different needs and will need different reasonable adjustments and adaptations to be made in order to attend school, participate in school activities and access the curriculum. Reasonable adjustments and adaptations are identified based on the learners' individual needs and may include adjustments in learning activities, teaching strategies, assessment, communication, use of specialised equipment or assistive technology, or changes in the classroom and the school's learning environment in general. The learner with physical impairment may also need adaptation to support them to engage with peers and to stay healthy and safe in the school and in the classroom.

GLOSSARY: Mobility-impaired

"Mobility-impaired" refers to a person who is subject to a physiological defect or deficiency regardless of its cause, nature or extent that renders the person unable to move about without the aid of crutches, a wheelchair or any other form of support; or that limits the person's functional ability to ambulate, climb, descend, sit, rise or perform any related function.

Learners with physical impairment and neurological conditions may also have perceptual difficulties that can take various forms. Some learners have difficulty receiving information by hearing or sight, while others can see or hear, but cannot process the information they receive. This can cause difficulties with reading and writing, such as locating the correct place on the page, or moving from left to right when reading and writing. Learners with a neurological condition, and who may also have a physical impairment, may have speech and language difficulties. Learners who are deaf, or who have partial hearing, may have difficulty communicating through speech. Learners with cerebral palsy, for example, may have communication difficulties and are often thought to be far less able than they really are.

It is important to avoid making quick judgments concerning a learner's intelligence and ability if their speech is slow, slurred, or if they are non-verbal.

In this chapter, we continue to discuss the impact of different types of impairment with a focus on physical impairment – that is, examining the effects or impact of physical impairment on children in the classroom. We also examine barriers to learning experienced by learners with physical impairment and the experiences of learners with physical impairments as well as classroom adjustment and adaptation that will promote their active participation in the class. Let us now look at important physical conditions that lead to physical impairment, their impacts and the barriers faced by physically impaired learners.

Causes, impact and barriers related to physical impairment

In this section, we look at some of the conditions that can lead to physical impairment, as well as the impact of physical impairment on both learners and learning. We also examine the environmental, social and economic barriers that exclude learners with physical impairment.

Conditions that can lead to physical impairment

Several conditions may result in physical impairment – which can be permanent, temporary or intermittent in nature. Examples of physical impairments include cerebral palsy, arthritis, muscular dystrophy, multiple sclerosis, Parkinson's disease and repetitive strain injury. Speech and vision may be affected in learners with cerebral palsy. Back and neck injuries may also affect mobility and physical disability can result from head injury.

Generally, physical disability (or any other kind of disability) can occur at prenatal, perinatal, and postnatal periods of a pregnancy. Prenatal means between conception and before birth. Conditions that can cause disabilities within this period include exposure to cigarette smoking, urinary infection, hypertension, threatened abortion and gestational diabetes. Perinatal is the period between labour and delivery. That is, the time immediately before and after birth. Conditions that can cause disabilities include acute fatal distress prematurity, exceeding the term, difficult labour, low birth weight and macrosomia. Postnatal denotes the period after childbirth. Conditions that can cause disabilities include respiratory infection, auditory deficit, urinary infection and blood disease.

Impact of physical impairment on the learner

The impact of physical impairment on learners includes:

- Coordination and balance may be mildly or severely affected by movement, or may be impaired by muscle spasms, numbness or pain.
- Manipulating equipment and learning materials and doing writing tasks may be difficult.
- Learners using wheelchairs, callipers, crutches, walking sticks, white canes, etc. may be slow in all activities in school. Learners with physical disabilities may also experience chronic fatigue or extreme fluctuations of energy from day to day.

Impact of physical impairment on learning

Apart from the impact on the learner, there is also an impact on the learning process. The impact of physical disabilities on learning varies, but most learners struggle with issues related to:

- Physical access in terms of transportation from home and navigating the school compound as well as classroom arrangements.
- Ability to manipulate equipment and learning materials in laboratory work, practical experiments and demonstrations.
- Ability to access modified keyboards, on-screen and touch screen keyboards, specialised computer mice, screen-reading software, speech-to-text software, magnification software, eye-gaze communication devices and braille.
- Restrictions in participation in field trips and the time and energy expended in moving around campus.

Other effects on learners with physical impairments include them needing more time to move between venues and do simple tasks. Fatigue is also common for many of these learners and utilising facilities such as toilets, food outlets, libraries and lecture rooms can be a major task. Learners may also have frequent or unexpected absences from class due to hospitalisation or changes in rehabilitation or treatment procedure. Learners with long-standing mobility issues may have experienced gaps in schooling due to periods of hospitalisation, which can affect their confidence in learning.

Learners with physical disabilities may have fewer opportunities for interaction with other learners and feelings of separateness in the learning environment can impact negatively on their learning.

In addition to the impact of the physical impairment on the learners and learning, there are barriers that exclude learners with physical disabilities from schools.

Barriers that exclude learners with physical impairment

The UNESCO International Bureau of Education (IBE-UNESCO) identifies three major types of barriers that physically impaired learners could face: environmental, social and economic, and academic.

Figure 1 shows the three barriers that exclude learners from schools in relation to presence, participation, and achievement (PPA). According to IBE-UNESCO (2016), inclusion is concerned with the identification and removal of barriers that prevent learners from school, participating in school activities and achieving the learning outcomes. Further, inclusion is about PPA of all children. "Presence" refers to where children receive their education and how reliably and punctually they attend school. "Participation" refers to the quality of children's experiences while they are present in the school and must incorporate the views of the learners themselves. "Achievement" pertains to the outcomes of learning across the curriculum, not merely test and or examination results. In the section below, we shall discuss barriers that exclude learners with physical impairment from school.

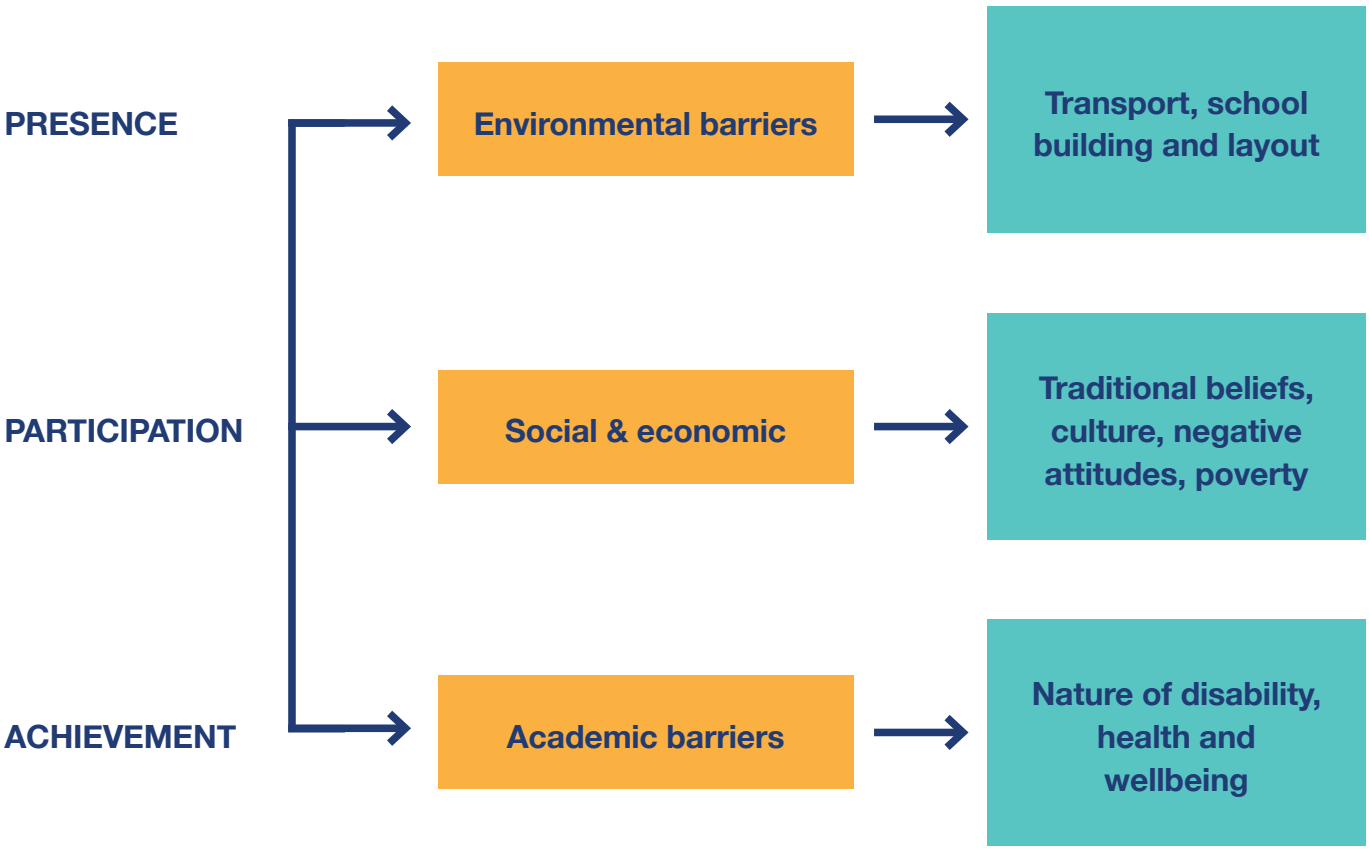

Figure 1: Barriers that exclude learners with physical disabilities from school

Environmental barriers relate to transportation and physical infrastructure such as school buildings. Learners with physical impairment may need specialised transport in order to get to school. Transportation involves money and having resources to own a car, rent taxies, etc. Traditionally, most school buildings are not designed to make learners with physical impairment feel comfortable and they cannot move about freely in the school or in the classroom. A friendly school environment promotes learning for learners with physical impairment.

Social and economic barriers pertain to the income level of the families of learners with physical impairment. The literature shows that parents of physically impaired learners are typically engulfed in poverty (**Slee et al., 2019**). Traditional beliefs about learners with impairment, negative attitudes towards disability and how families that have children with physical impairment are treated in communities also constitutes a barrier.

Typically, cultural beliefs marginalise learners with physical impairment, preventing them from accessing the educational opportunities which are meant to be enjoyed by all learners. For instance, in Ghana, there is a general superstition about the causes of disability (**Agbenyega, 2003**; **Avoke, 2001**). That is, some people in Ghana believe that causes of disability can be attributed to the acts of demons, witchcraft and wizards and that children with disabilities are demon-possessed (**Agbenyega, 2003**; **Avoke, 2001**; **Nseibo, 2021**). Such beliefs can cause parents to hide children with physical impairment in their homes, thus preventing them from going to school – and, in some cases, "wo gya won kwan ma wo san ko won akyi [are made to return to where they came from]" … which means that such children are killed (**Nseibo, 2021, p. 211**). The action of society to avoid whatever is associated with evil affects people's beliefs and attitudes towards children with disabilities. These misconceptions have produced negative attitudes within the family, the community and the school and have created barriers that impact on the education of learners with physical impairment.

Academic barriers refer to how impairment presents (that is, the nature of the impairment as seen on the learner – mild, severe, etc.) and impacts on the ability of learners with physically impairments to learn. As discussed in **Chapter 23**, the ICF aims to provide scientific basis for understanding and studying health and health-related states, outcomes, determinants and changes in health status and functioning. It also aims to establish a common language for describing health and health-related states to improve communication between different users, such as healthcare workers, researchers, teachers, education officials, policy-makers and the public, including people with disabilities. The ICF classifies impairment according to the support that would be required by each person with physical impairment. Teachers and educators may need these reports by medical practitioners in order to prepare individual support plans for learners who may encounter academic barriers and which promote lifelong learning. Individual support plans should be based on physically impaired learners' strengths, weaknesses, opportunities and threats (SWOT). A SWOT analysis can be used to identify the barriers that learners with physical impairment may experience at school.

Figure 2: SWOT analysis of barriers experienced by physically impaired learners

REFLECTION

Estimated time: 10–15 minutes

Reflecting on the SWOT analysis presented in Figure 2, identify and list at least four things you think are the strengths, weaknesses, opportunities and threats for learners with physical impairments.

Teaching and learning strategies for inclusive practices

The inclusive schooling practices framework (ISPF) (**Nseibo, 2021**) utilises UDL principles to promote inclusive practices in schools.

The ISPF considers learners' development and learning in terms of the wider environment (layers in the framework) – from home (parents and communities) to the school (teachers, schools, classrooms and school layout). It places learners with physical disabilities at the centre of the picture and argues that good teaching strategy must involve collaboration between the school and the home, where parents and community members together with the teachers contribute to inclusive schooling practices.

The ISPF considers presence, participation and achievement by the learner with physical impairment to articulate strategies to bring learners from their homes to the school and support them by using the UDL principles to:

- Engage and sustain their interest and persistence (multiple means of engagement).
- Make teachers' instructions accessible and improve learners' understanding (multiple means of representation).
- Support learners to show their learning in different ways (multiple means of action and expression).

These UDL principles enable all learners to achieve the expected learning outcomes.

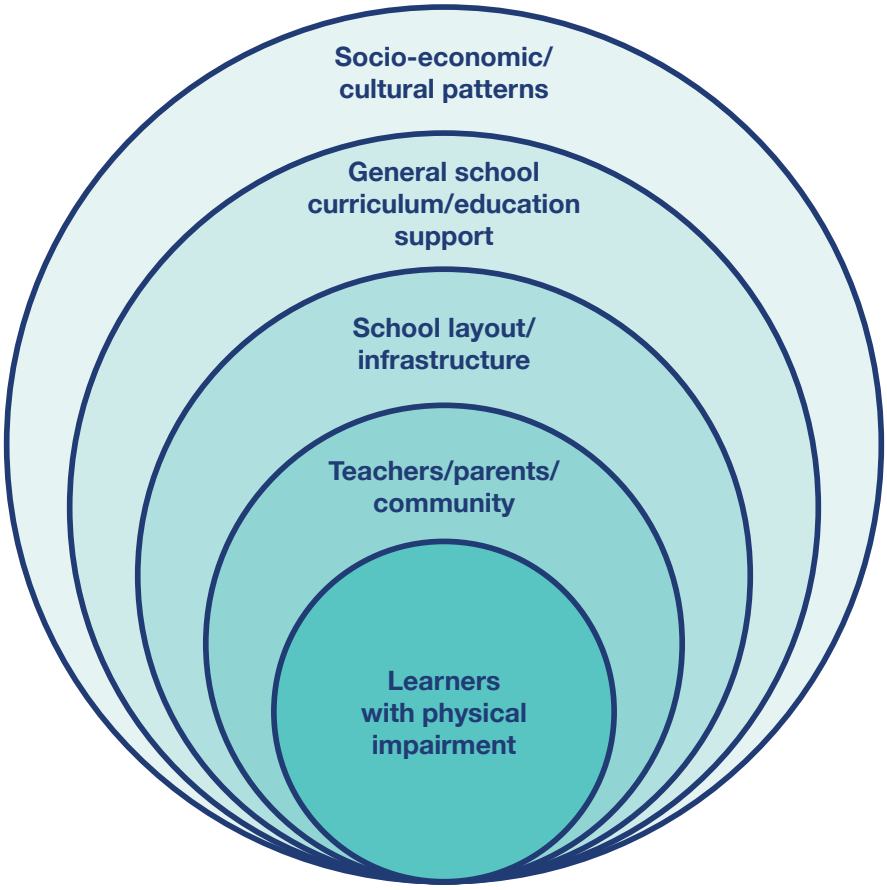

Figure 3: Inclusive schooling practices framework (Adapted from: **Nseibo, 2021**)

In order to sustain learners' interest and motivation to achieve expected learning outcomes in the classroom, teachers and educators should consider the IBE-UNESCO guidelines (**2016**), which provide the following indicators for inclusive schooling practice:

- Every learner is made to feel welcome.
- All learners are equally valued by both learners and staff.
- There are high expectations of all learners.
- Staff and learners treat one another with respect.
- There is partnership between staff and families of all learners in the school.
- The school is accessible to all learners.
- Senior staff support teachers in making sure that all learners participate and learn, and teachers are given the necessary resources.
- The school monitors the presence, participation and achievement of all learners.

It is also important to note that physical impairments should not exclude learners from participating in classroom activities. Depending on a learner's impairment, a well organised, adaptive class or modifications within the learning space will embrace all. Table 1 describes some barriers that can be encounterd by learners with physical impairments and corresponding suggestions for classroom adaptations.

Table 1: Barriers and classroom adaptations

Barriers/challenges	Classroom adaptation
Has unique needs in terms of physical space or difficulty using chairs/tables in the classroom/lab.	Create a physically accessible environment that does not impose mobility constraints.
Needs specialised transportation.	Be flexible with the classroom schedule. Learners may arrive late or need to leave before the class is over due to transportation requirements.
Often physically unable to hold a pen and write for extended periods of time.	Replace written exams or assignments with an oral exam or presentation.
Experiences fatigue and limited mobility when speaking to a person for a long period of time.	Use a note-taker/scribe or speech-to-text software to record answers in tests/exams.
Requires extra time to obtain formats compatible with assistive technology.	Provide a room other than the classroom for exams, if required. Provide extra time for tests/exams and some components of coursework.

Barriers/challenges	Classroom adaptation
Feels excluded during group exercises or has difficulty moving around the classroom.	Make sure that the person is always included with others when forming groups. Allow learners to take part in all school activities.
Expends a great deal of energy to complete daily tasks.	To reduce fatigue of learners with physical impairment, it may be helpful to limit the number of exams on a given day or week. Extra time should be planned for oral reports on occasion if the person has diction problems. You may reduce course load.
Experiences challenges with daily living activities and mobility.	Make sure that all off-site activities are accessible. You may provide alternative assignment options.

Conclusion

The initial barrier experienced by many learners with physical impairment is physically accessing the learning environment itself. For many learners with physical disabilities, the inaccessibility of buildings and surrounding areas is problematic.

As we learned in **Chapter 23**, physical impairment may have an impact on some or all activities in the school to a greater or lesser extent. Learners with physical impairment may have problems related to movement, posture (e.g., sitting, standing), grasping or manipulating objects, communication, eating, perception, reflex movements, and/or automatic motricity (e.g., sphincter, intestinal muscles). In this chapter, we discussed the three major barriers (environmental, social and economic, and academic) that prevent learners with physical impairment from active participation in the school and in classroom activities. It was noted that learners with physical impairment have strengths, weaknesses, opportunities, and threats, and that a SWOT analysis can assist teachers and educators in getting to know their learners and in developing an individualised educational plan for each learner. Common challenges encountered by learners with physical impairment and their suggested classroom adaptations were laid out. We discussed how children with physical disabilities could be placed in the centre of inclusive education schooling system and the indicators that show an inclusive schooling practice were enumerated.

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