# Architecture & Design Scotland

# User experience informs better design

Scenarios of a day in the life



### Introduction

In this exercise we consider the experiences of two personas: Ruaridh, an imagined wheelchair user and Ailsa, a child with no additional needs. By creating a 'typical day in the life' scenario, we can identify areas where design thinking and planning can yield solutions. This approach also highlights how a lack of inclusive design principles can result in the exclusion and isolation of children in learning environments.

These personas were developed based on observations and interviews with users from The Craighalbert Centre, the Scottish Centre for Children with Motor Impairments. They demonstrate how different emotional and physical needs can have very different spatial requirements.

Working with Thea Chambers, an inclusive design consultant, we explored a range of scenarios for how the children would use the space throughout the day; from arrival, to morning play, to going home. This approach can help think about spatial needs – not about determining every space but helping to build a picture of what children in early years, with a range of additional support needs, may require.

# What we mean by inclusive and accessible design

This publication outlines principles to consider, rather than guidance. When we refer to inclusive and

accessible approaches, this is very much in reference to our learning from the Craighalbert project and an additional supported needs (ASN) basis. There are many other factors and users to consider and collaborate with in creating fully inclusive spaces.

We hope to further expand these resources for the learning estate, and we are eager to develop further projects and case studies to deliver this form of support.

#### **Personas:**

#### Ruaridh

Ruaridh is a determined 5-year-old who uses a wheelchair and an eyegaze device to communicate. Unlike some of his peers, his day involves extra challenges – waiting to be hoisted from his van, relying on staff to notice his cues, and navigating spaces not always designed for him. He wants to be fully involved, from preparing snacks to choosing where to play, but without thoughtful accessibility, he risks being left out. Inclusive design – clear pathways, adaptive equipment, and sensory-friendly spaces – ensures he can participate alongside his friends, making choices, learning, and socialising just like any other child.

#### Ailsa

Ailsa is a lively and curious 6-year-old who loves the freedom to explore and make her own choices. Her day is filled with movement – walking or cycling to school, running between play areas, and freely choosing where to go next. She greets friends and staff directly, effortlessly joining in conversations and games.

Comparing two users against the same tasks and stages of the day helps to understand that a simple task, that requires no thinking for one person, can be littered with barriers and decisions for another.

A day in the life at Craighalbert	Ruaridh, wheelchair user	Ailsa, no additional needs
Morning arrival	Arrive lates, depending on morning routine.	Skips in with her Dad, may be a bit teary at first.
Morning arrival	Arrives by wheelchair accessible vehicle (WAV), hoisted or wheeled out and into the front entrance (accessible).	May have walked, cycled, enjoyed the nature of the surrounding park on her way to nursery, and will have had a chat with her parent / carer about how she feels about nursery, what she might do today, who she wants to see, any feelings about going in.
Morning play	Says hi to friends and staff, using eyegaze (which must be accessible at all times, as it acts as his voice). Chooses where to play and who to play with (communication based).	Approaches members of staff and friends directly to say hi to everyone.
Snacktime	Wants to help prepare snacks just like other kids. Accessible inclusive kitchen surfaces are needed. Occupational Therapy input in design necessary.	Could stand at an island that is wheelchair accessible height and work with Ruaridh to prepare the snack – kids working in a team learn from each other about their own strengths.
Outside play	To make the choice to go outside, he needs access to communication (eyegaze, touchpad, or staff need to notice his eye pointing). Can we design the space to make this easier for him?	She can go freely between play areas, and in and out of the space, depending on who she sees and wants to play with – she has complete agency in this.

A day in the life at Craighalbert	Ruaridh, wheelchair user	Ailsa, no additional needs
Lunchtime	Ruaridh has a blended diet and is tube fed. With an accessible kitchen island, and a switch operated blender, he can be fully involved in preparing his lunch and include friends of his choosing to help. If he has some oral feeding, he may need a quiet area with no distractions for this part.	Ailsa sits at the table and chats with her friends. With good design Ruaridh can do this too.
Naptime	If Ruaridh can sleep on a bed on the floor this will be nicer – hoists to ground needed (for play as well). He may need sensory regulation to fall asleep, if it's listening to something this could help the other kids too.	Ailsa enjoys listening to Ruaridh's meditation tape, lying next to him along with the rest of the children.
Storytime	Consideration will need to be given to the design of the carpet/seating area in order to include Ruaridh (who cannot sit independently unsupported).	Everyone sits on the carpet for a shared experience of storytime.
Afternoon play	Ruaridh needs more support with this but it CAN happen. He can use his communication device to decide, the staff can work with him on this, or eye pointing, or other soft tech communication. The space needs to enable his equipment to be navigated really easily to go with his changing requests (and keep up with the other kids).	There are lots of different play areas Ailsa can go to – she has complete agency in this, and can also change her mind.

A day in the life at Craighalbert	Ruaridh, wheelchair user	Ailsa, no additional needs
Creative play	Occupational therapy input will be needed for Ruaridh to have this same learning experiences as Ailsa. Think about how the space where this happens can be more accessible and inclusive.	Ailsa uses her hands, her gross motor and fine motor skills to experiment and learn through playing creatively.
Kitchen play	Everything needs to be accessible and adapted to enable heuristic play learning.	Ailsa can pick up anything she chooses and experiments with how to use them.
Ready for home	Ruaridh gets help from two staff members to get his jacket on, and to be hoisted into his home chair (this can happen anywhere due to A-H hoist system, but SHOULD happen where the other kids are doing the same activity).	Ailsa gets her outdoor shoes, and puts her jacket on, maybe getting help with her laces. She puts her rucksack on her back.
Going home	Ruaridh's dad comes in and asks staff about the day. Ruaridh uses communication device to tell his dad how he is feeling, and what he has done.	Ailsa's Mum comes in and chats with staff and Ailsa about her day.

# A quick compare and contrast

The chart below highlights key moments where design can enhance Ruaridh's experience, while also enriching Ailsa's by enabling Ruaridh to participate alongside his peers.

A day in the life at Craighalbert	Ruaridh, wheelchair user	Ailsa, no additional needs
Morning arrival	Arrive by wheelchair accessible vehicle (WAV)	Arrive by foot, through forest
Morning arrival	Transfer from WAV inside, de-stress after car journey	Dash in alone, or be sad at leaving parent
Morning play	Design of spaces gives more choice for play	Agency to chat to whoever she wants to
Snacktime	Accessible work surface needed	Being close to ALL her friends
Outside play	Design needed that enables easy movement	Freeplay and movement inside with ALL outside
Lunchtime	Can be the same as snack prep	Sitting with ALL friends
Naptime	Accessible sleep area for relaxation	ALL sleeping in the same place
Story time	Floor sitting design that works for ALL	Everyone sits on the carpet for a shared experience of storytime.
Afternoon play	Design needed to enable easy movement	On foot kids can move in harmony with wheelchair users
Creative play	Design needed to enable free choice	Being involved with a group of kids free playing
Kitchen play	Design needed to enable inclusive play	ALL kids learn through heuristic play
Ready for home	This should be in the same space for all the kids are getting ready	All getting ready together
Home time	Inclusive social area for goodbyes	Inclusive social area for goodbyes

#### **Credits and acknowledgements**

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The Craighalbert Centre was established as The Scottish Centre for Children with Motor Impairments in 1991. They are a therapy centre and one of Scotland's Grant Aided Special Schools funded directly by the Scottish Government to provide specialist and high quality integrated therapy and education for children and young people affected by cerebral palsy and similar neurological conditions.

www.craighalbert.org.uk

Thea Chambers is an access and inclusive design consultant, with 20 years of lived everyday experience, and 12 years of experience as Design Director of the multi award winning architectural practice Chambers McMillan Architects

www.mind-the-gap.space

Explore our work on inclusive and accessible learning spaces

Visit our website to explore our '<u>Designing for inclusive and accessible learning</u> environment' resource.



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