

STUCK

SG ENABLE
Inclusive society. Enabled lives.

Design Playbook for Inclusive Spaces



Content

Preface	4
How to use this playbook	5
Vision for Inclusive Spaces	6
Principles and Experiences for Inclusive Spaces	7
Seed Ideas for	
Inclusive Retail Spaces	20
Inclusive Food & Beverage Spaces	24
Inclusive Wellness & Community Services Spaces	28
Inclusive Training Spaces	32
Inclusive Wayfinding	36
Make your own space inclusive	40
Additional Resources	41

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Everyone who took the time to share their thoughts, experiences, and hopes with us.

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Preface

This playbook is developed for businesses and establishments looking to design inclusive spaces and experiences. It helps you to better understand the needs of persons with disabilities to go beyond physical accessibility into developing inclusive spaces that are welcoming for everyone. Read this playbook as an inspiration, not instruction, to create and implement your own ideas for inclusion!

The principles and ideas in this playbook have been distilled from conversations with persons with disabilities, caregivers, and inclusive organisations. Their needs and aspirations for inclusive spaces are then combined with placemaking qualities to become ideas for spaces that are inviting and welcoming to all.

This document augments, not replaces, existing accessibility requirements and standards (e.g. the Building and Construction Authority's Code on Accessibility in the Built Environment), and other available inclusive design resources. We hope that everyone can take a step towards designing spaces in Singapore that are truly inclusive for all.

Why be inclusive?

For businesses, being inclusive to persons with disabilities is not only the right thing to do, but the good thing to do as well. Here are three ways that inclusive design benefits businesses.

First, inclusive design benefits everyone. For example, a space that is accessible to wheelchair users is also accessible to parents with prams, seniors using mobility aids, or even tourists wheeling their suitcases. While the ideas in this playbook are conceived with persons with disabilities in mind, these ideas can benefit persons without disabilities as well and enhance everyone's overall experience.

Second, when businesses design with persons with disabilities in mind, they welcome persons with disabilities as well as their caregivers, families, and friends. Conversely, spaces that are not designed inclusively risk losing out on the patronage of not just persons with disabilities, but their loved ones too.

Finally, inclusive design drives innovation. The design process requires problems to be understood from the perspectives of users or customers. With inclusive design in mind, it challenges businesses to look beyond their 'typical' customer base to think about how their products and services can benefit a wider group of people. Design thinking incorporates empathy and divergence, both of which are key drivers of innovation.

In short, businesses that design their spaces inclusively count a much wider pool of people as potential customers and are poised for innovation, all while doing good at the same time.

How to use this playbook

Principles and Experiences for Inclusive Spaces help you understand the needs of persons with disabilities, and the intent behind the ideas presented in this playbook. Use these principles to guide the design of your own space. Some ideas on how these principles can be applied are also shared along with each principle. These ideas will be further elaborated on in the subsequent section on seed ideas for different types of spaces.

Seed Ideas in this playbook have been sectioned by different tenant types and shared spaces: retail, food & beverage, wellness & community services, training, and wayfinding. Check out the respective sections for some ideas to inspire your own inclusive design for your own space.

Even as spaces trend towards non-singular use (e.g. a retail shop with a cafe, training centres with wellness corners), these broad principles and ideas remain relevant to mixed use cases and space types.

When using this playbook, we recommend for all readers to read the **Principles and Experiences for Inclusive Spaces** first to understand the overarching considerations when designing inclusive spaces. Following that, readers can proceed to the **Seed Ideas** relevant to the spaces they manage to get a sense of how these principles can be applied to more specific settings. For example, owners of food & beverage outlets should first read about the **Principles and Experiences for Inclusive Spaces** and then read the **Seed Ideas for Inclusive Food & Beverage Spaces**.



Vision for Inclusive Spaces

Inclusive spaces should not only be barrier-free physically, but also sociable, comfortable, and engaging for all visitors. Hence, to build inclusive spaces, we have to go beyond physical accessibility and, think about creating **inclusive experiences** where the needs of persons with disabilities are seamlessly integrated into the design of spaces and services available within these spaces.

In addition to insights from our conversations with persons with disabilities, caregivers, and inclusive organisations, we are guided by the four attributes of placemaking by the [Project for Public Spaces](#) (Fig.1) when developing the principles and ideas in this playbook.



Fig. 1: The four key attributes of placemaking, developed by the [Project for Public Spaces](#)

Principles and Experiences for Inclusive Spaces

Use this set of principles and the corresponding experiences to guide the way you design for inclusiveness in your spaces.

Principle 1 Support meaningful and easy communication

People can communicate in a manner that is suitable and most comfortable for them.

Principle 3 Support independence

People feel safe when they are on their own and free to be themselves without fear of judgement.

Principle 5 Enable options and choice

People can seamlessly opt for the appropriate type and level of assistance and social interaction.



Principle 2 Make it easy to receive or provide help

People can receive and provide assistance effectively when needed.

Principle 4 Provide fair access to activities and services

People feel welcome to engage in all activities and services.

Principle 6 Make essential information readily available beforehand

People feel prepared and know what to expect from a space even before visiting it.

1 SUPPORT MEANINGFUL AND EASY COMMUNICATION

People can communicate in a manner that is suitable and most comfortable for them.

We typically communicate verbally but some persons with disabilities may have difficulties with verbal communication. Yet, spaces and situations sometimes limit non-verbal modes of communication. For example, seats that are positioned in close proximity may not allow two persons who are deaf or hard of hearing who are seated there to comfortably communicate using sign language, as there is insufficient space between them to use their hands to sign. In setting up spaces, we should consider how we can support different ways of communicating and allow people to understand one another easily.



How might we set up an environment that supports different modes of communication and allows us to understand one another easily?

Supporting meaningful and easy communication could mean...

Designing touchpoints which allow for multiple modes of communication with customers (e.g. speaking, mouthing, pointing and gesturing, typing, or writing)

Designating interaction points and spaces which facilitate the use of sign language (e.g. designing spaces to free up hands for signing, having enough space for signing, circular spatial layout/seating so that people can see one another signing)

Creating an acoustically comfortable environment to reduce background noise where possible (e.g. using soft surface materials, which absorb sound rather than hard surface materials which reflect sound)

“ With my verbal difficulties, [my] pet peeve is [people] don't engage me directly, but [speak with] the people around me... [so I] switched to e-ordering... which allows me to order directly independently. ”

Person with physical disability and verbal difficulties

“ If it's a high interaction restaurant, it's important to know how to communicate to have meaningful conversations. ”

Person who is deaf

2 MAKE IT EASY TO RECEIVE OR PROVIDE HELP

People can receive and provide assistance effectively when needed.

While many people wish to help others, it is important to do so in a manner that is appropriate, respectful, and timely. Not knowing what to do or how to provide effective assistance is a common reason for awkwardness. In addition, having the right environment and available equipment could make it much easier for people to provide assistance to persons with disabilities and for them to receive help more readily when required.



How might we enable people to provide and receive help effectively?

Making it easy to receive or provide help could mean...

Having equipment or items on hand that can be easily provided as and when required (e.g. straws for persons who are unable to lift a cup or drink directly from it, wheelchairs for persons with mobility challenges)

Ensure that staff can be easily notified when assistance is required (e.g. ensuring that staff have sight of the space, paying special attention to areas that are out of sight or installing call buttons in such areas)

Having modular furniture or equipment that is easy to manoeuvre when needed (e.g. when more space is required)

“ There’s an assumption that blind people don’t use the escalator [and only use lifts]... but escalator is sometimes more directly linked to the building, so it’s better to have indicators for escalators [for me to know where they are]. ”

Person with visual impairment

“ [On the MRT] it’s embarrassing when staff announce to give up the seat to me... I prefer to stand... there may be others who need the seat more. ”

Person with visual impairment

3 SUPPORT INDEPENDENCE

People feel safe when they are on their own and free to be themselves without fear of judgement.

The feeling of being judged negatively by others can significantly impact someone's self-esteem and well-being, which discourages persons with disabilities and their caregivers from getting around and socialising with others. Providing a safe space where persons with disabilities are comfortable with being independent also creates a more inclusive environment.



“ [children with special needs] need a safe space to go out of their comfort zone, to learn right and wrong, to learn life skills. ”

Caregiver of a child with intellectual disability

How might we create an environment which encourages independence?

Supporting independence could mean...

Carving out time for persons with disabilities and caregivers to use spaces comfortably (e.g. introducing 'quiet hours' with dimmer lights and no loud announcements for shoppers who are more sensitive to stimuli)

Providing a safe environment in which caregivers would be comfortable with their care recipients exploring on their own (e.g. activities within demarcated spaces with trained staff on standby)

Creating spaces where any atypical behaviour is acknowledged, accepted, and not frowned upon (e.g. provision of dedicated calm spaces for persons with autism)



4 PROVIDE FAIR ACCESS TO ACTIVITIES AND SERVICES

People feel welcome to engage in all activities and services.

Shared experiences and common activities help to build social relationships. Yet, many activities are inaccessible to persons with disabilities, which could potentially contribute towards social isolation and exclusion. Beyond physical accessibility, inclusive spaces for activities and services also need to consider the needs for persons with disabilities. For example, some persons with autism are sensitive to external stimuli. To address this, spaces could reduce the use of harsh lighting and materials that tend to reflect sound.



“ Right now, nightlife is completely closed off to us... There’s no equal access. ”

Wheelchair user

How might we design activities that support different forms of engagement for people of different abilities to enjoy the activity together?

Providing fair access to activities and services could mean...

Providing adequate time for persons with disabilities to complete activities independently if they choose to (e.g. allow persons with disabilities to enter a theatre earlier so they can locate their seats before other attendees arrive)

Having modular furniture or equipment that is easy to manoeuvre when needed (e.g. when more space is required)

Ensuring that the environment is not unnecessarily overstimulating (e.g. using adjustable lighting, opting for materials that dampen sound)

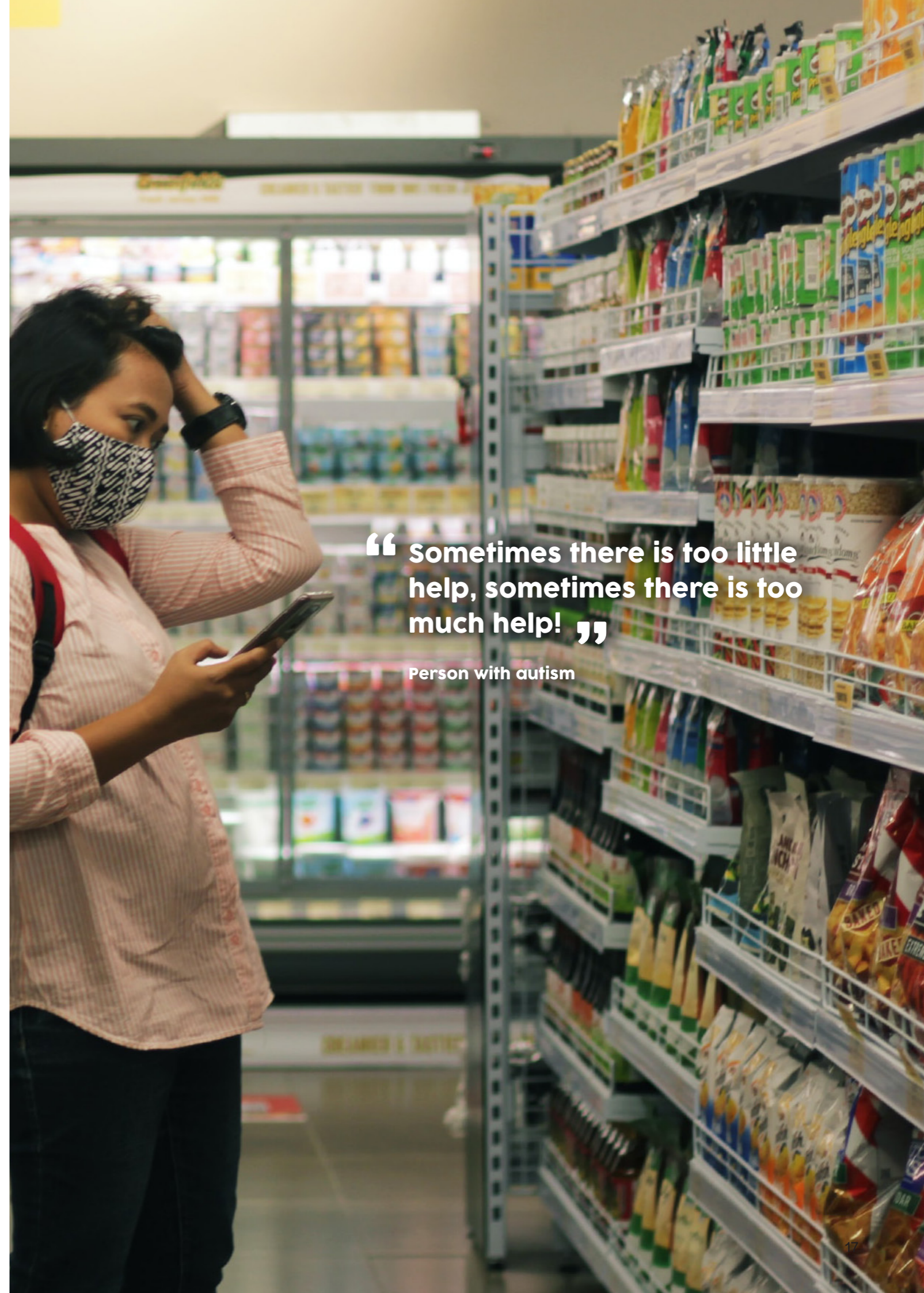
Designing a space that balances different needs to allow all users to participate actively (e.g. intentionally dark spaces like nightlife establishments can still provide “just enough” lighting for people who require lighting for wayfinding and communication)

Including the use of Braille in strategically placed locations for the blind (e.g. indicating floors in Braille on staircase railings and lift buttons)

5 ENABLE OPTIONS AND CHOICE

People can seamlessly opt for the appropriate type and level of assistance and social interaction.

It is important for spaces and services to be designed in a manner that makes requesting for assistance easy. Consider the airplane experience – with a single press of a button located within arm's reach of the passenger, flight attendants are notified and are able to respond appropriately. In the same way, ensuring that customers do not have to go out of their way to ask for help assures them that requesting for assistance is expected and already catered for. Hence, to ensure your space is inclusive to persons with disabilities, it is important to not only consider the type of assistance available, but also how they can ask for it.



“ Sometimes there is too little help, sometimes there is too much help! ”

Person with autism

How might we design spaces and services to ensure that persons with disabilities are able to seamlessly request for assistance and choose a comfortable level of social interaction?

Enabling options and choice of assistance could mean...

Ensuring that options to request for assistance are incorporated in the design of spaces and services (e.g. restaurants with self-order kiosks could designate staff members to assist customers who may not be able to use the kiosks)

Allowing customers to share their accessibility requirements before visiting the space, so that staff can provide more tailored service upon arrival of the customers (e.g. including accessibility requirements as a field on event registration forms)

Equipping staff with the resources and knowledge to provide assistance in different modalities (e.g. typing information out when interacting with persons who are deaf or hard of hearing, being more descriptive when sharing about products to persons with visual impairment)

6

MAKE ESSENTIAL INFORMATION READILY AVAILABLE BEFOREHAND

People feel prepared and know what to expect from a space even before visiting it.

Having the option to pre-plan before visiting a new place allows persons with disabilities and caregivers to better prepare for unfamiliar places and experiences ahead. This is even more pertinent for persons with disabilities who may need to check the accessibility of a space, or caregivers of children with special needs who may find such information useful as part of familiarising their children with the spaces before their visit.



How might we prepare persons with disabilities and caregivers to visit unfamiliar spaces through the provision of relevant information?

Making essential information readily available beforehand could mean...

Providing essential and updated information about accessibility online wherever possible (e.g. information about the availability of accessible washrooms, peak/crowded hours to avoid, accessible routes from major transport nodes, recent changes to the space)

Providing more photos, videos, and descriptions of the space online, and ensuring the website is e-accessible (designed to meet the Web Content Accessibility Guidelines) for those with sensory disabilities

Working with the disability community to co-create social stories for persons with autism (e.g. a walkthrough of a new supermarket by a caregiver of a child with autism or a wheelchair user sharing accessible routes to the destination)



“ One week before [going to a new place], we will start to prepare... pre-empt my son on what to expect about the space. ”

Caregiver of a child with autism

Seed Ideas for INCLUSIVE RETAIL SPACES



Principle 6: Make essential information readily available beforehand

Provide essential information for pre-planning online

Similar to browsing an online catalogue before visiting the brick-and-mortar store, some customers with disabilities or caregivers may choose to prepare themselves for a visit to the store by looking up reviews and others' experiences in the same place. Having up-to-date and comprehensive information about your store online will help customers plan for their visit, especially for persons with disabilities and caregivers who may need to consider physical accessibility and sensory considerations prior to visiting the store.

Spatial

Walkthrough videos and social proof



Keep your website up to date with information that will be helpful for planning a visit. For example, the site can have social stories featuring walkthrough videos about directions, sensory information, and what to expect in the store, or videos featuring customers sharing about their experiences in the store.

“ First thing I will look for is a social story... people who have visited the place... I see photos and search for inclusive feedback... it lets me know what to expect before going. ”

Caregiver of a child with autism

Communication

Information on noise and crowd levels at different times and zones

Provide information on the general noise and crowd levels throughout the day and in different zones of your store (if it is large enough), so that customers can choose to visit during less crowded periods or avoid noisy areas of your store.

Provide assistance only when needed, and in various forms

Store assistance is part and parcel of the shopping experience. Ensuring that assistance is easily accessible is crucial in creating a comfortable shopping experience. When help is requested, customers should have a choice among different forms of assistance. To facilitate this, retailers can also consider anticipating the needs of customers even before they arrive at the store and ensuring convenience after they leave.

Service and programming

Pre-shopping appointment



Provide options for customers to make an appointment before heading down to your store, and allow them to indicate any accommodations, needs or requests beforehand. This way, preparations can be made to accommodate their needs (e.g. meeting the customer at the door, reducing music volume, preparing a selection of items beforehand), thus creating a seamless and inclusive shopping experience.

Service and programming

“Pick up for me” service

Provide the option for customers to browse in-store before having a retail staff pick up their items at the end or deliver the purchased items to the customers' home. This is an especially helpful option for persons using mobility aids who may find it challenging to carry several bags at the same time or customers who prefer a hands-free shopping experience.

Communication

Aircraft-inspired call button

Include a subtle and easy way for customers to call for assistance to meet them where they are. This is especially useful for larger retail spaces like supermarkets or departmental stores, where it might be more difficult for customers to locate staff when assistance is required. For example, provide buttons along retail shelves that, when pressed, activate a call light to indicate the aisle where assistance may be needed.

Service and programming

Trained shopping assistants

Train your retail staff to assist customers with sensory disabilities (e.g. describing items in detail for someone with visual impairment).

Have on hand just-in-time aids

In creating an inclusive shopping experience for all, staff should be empowered to provide help or service in an appropriate manner. Having mobile and portable aids on hand ensures that the store is prepared to serve customers with disabilities. These aids could also be used in cases where the store cannot be retrofitted to be completely accessible or as temporary measures while exploring more permanent solutions.

Service and programming

Availability of Mobile Points-of-Sale



Provide the option for customers to pay for their purchases wherever they are in the store. For example, staff could have mobile Points-of-Sale (POS) devices on-hand. This serves as an alternative for customers who may have difficulty accessing or navigating to the cashier counter. In addition, mobile POS devices work towards creating a seamless shopping experience for all customers, including those with disabilities.

“The cashier counter is always too high. Sometimes the cashier can't even see me.”

Wheelchair user

Spatial

Mobile ramps

Have on hand portable ramps that can be used to cover small curbs or gaps that cannot be levelled, so that wheelchair users can access these parts of your store. This is especially helpful for stores located in areas where building a permanent ramp is not feasible (e.g. stores that open up into a narrow walkway).

Seed Ideas for INCLUSIVE FOOD & BEVERAGE SPACES



Principle 5: Enable options and choice

Provide choice and flexibility of seating

Comfortable seats and seat arrangements support an enjoyable dining experience. Inclusive dining experiences could mean ensuring that customers with different needs can choose their preferred seating arrangements.

Spatial

Variety of seating types in the same space

Create a variety of seating options for different levels of social interaction so that customers may choose the one that is most suitable and comfortable for them. These could include quiet individual seats, small cosy tables that are partially shielded from human traffic, or big, common tables that encourage socialisation.



“ You have an area [in the food court] for us, but your furniture doesn't cater to us. ”

Wheelchair user

Objects

Tables that are easy to rearrange

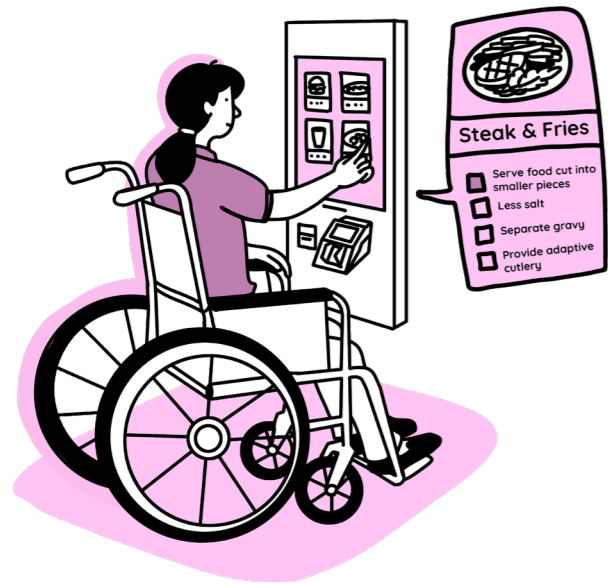
Consider using tables and chairs that are easy to be moved around, so that they can be easily rearranged to create more space or different seating permutations. Dining establishments should also consider installing tables with wide leg space, which would allow wheelchair users to position themselves comfortably at the table.

Provide different modalities of placing an order

Placing an order from the menu is a key customer touchpoint in any food and beverage establishment. A good experience makes it welcoming to all customers. Providing a variety of ways to place an order can make the ordering experience more seamless and enjoyable for everyone.

Communication

Additional requests baked into the experience



Incorporate additional requests into your main ordering menu, so that customers can easily indicate their needs. This seamless ordering experience can be included in both self-service kiosks and printed or digital menus as well.

“ I would be really happy if I could order my steak to be cut up before they serve it to me. ”

Wheelchair user

Spatial

Food court mobile order and table service

Similar to eateries and restaurants, food courts or other self-service food and beverage establishments could provide customers with disabilities with the option to order food from their tables (e.g. through their website or QR code) and for table service. This would benefit customers with disabilities who may find it challenging to collect and carry their food on their own. For example, manual wheelchair users use their hands to manoeuvre their wheelchairs and may not be able to carry food at the same time.

Communication

Pointable menus

Ensure menus are placed at a visible and comfortable height for pointing. In addition to the dishes available, display the various options for customisation (e.g. level of spiciness, no condiments) and a field for additional requests. This is especially helpful for people who are not able to otherwise articulate their dietary needs or preferences.

Communication

Updated and online menu made available

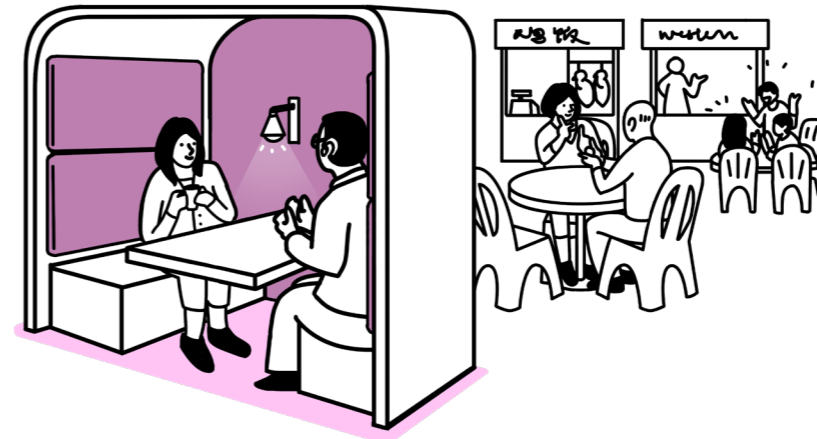
Provide an up-to-date and accessible menu online for customers to view beforehand. This is especially helpful for those who wish to prepare for their visit to your establishment, or for persons with visual impairment who may not be able to read a printed menu at the establishment.

Consider acoustic and lighting comfort

Meals are often also social events, where people gather and catch-up with one another. Hence, in addition to the meal itself, the environmental experience of dining establishments matters as well. Consider the acoustics and lighting design of your space early on in the design process to create an atmosphere that is best suited for people to communicate with one another, whether through speech, sign language, or text. This also makes it a more inclusive experience for people with sound or light sensitivities.

Spatial

Food court with acoustic panels



Create a food court with well-considered acoustics (e.g. using soft materials where possible to absorb sound). This makes the dining experience more comfortable for customers who may be more sensitive to noise, and helps those who are hard of hearing to focus more on their own conversations. Well-designed acoustics also makes it easier for all customers to have meaningful conversations with one another.

“ Background sound makes it hard to filter during conversation. ”

Person with autism

Objects

Modular furniture that moves quietly

Consider furniture that make minimal sounds when they are being moved. This is especially helpful for persons who are deaf or hard-of-hearing as it creates a more conducive environment for communication.

Spatial

Sufficient lighting

Ensure your space has sufficient lighting for persons to use sign language or read text comfortably. This is particularly important to consider when setting up low-light environments (e.g. nightlife establishments), where some areas could be designed to be more well-lit to facilitate visual communication like sign language.

Seed Ideas for INCLUSIVE WELLNESS & COMMUNITY SERVICES SPACES



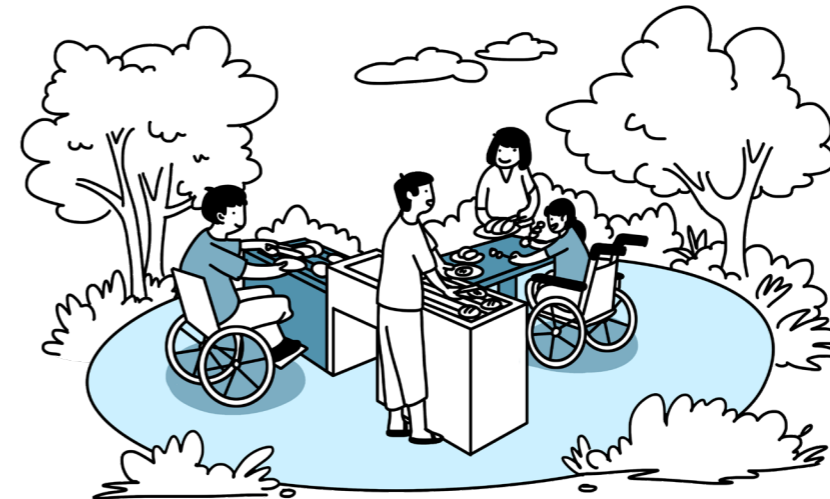
Principle 4: Provide fair access to activities and services

Design leisure spaces that are welcoming to everybody

Great places for leisure and socialising can be simple, as long as it is comfortable and accessible for everyone. When creating such spaces, ensure that baseline physical accessibility is accounted for, before including soft touches (e.g. soft lighting, good acoustics) to make your space comfortable and inviting.

Spatial

Accessible leasable spaces for social activities



Provide more accessible spaces that can be rented out for events and gatherings. In cases where the space is intentionally fitted out to make it more accessible, consider allowing persons with disabilities to have priority in booking it.

“ There aren't really any BBQ pits that are accessible for those in wheelchairs. ”

Wheelchair user

Spatial

Balance privacy with openness

Public seating areas tend to be fully exposed to human traffic (e.g. benches in shopping malls and parks). However, such arrangements may not be conducive for conversations and small group gatherings, which may sometimes be preferred by persons with disabilities. To provide some form of respite and privacy from the public eye, public seating areas could be orientated away from human traffic, or have higher seat backings.

Spatial

Welcoming atmosphere

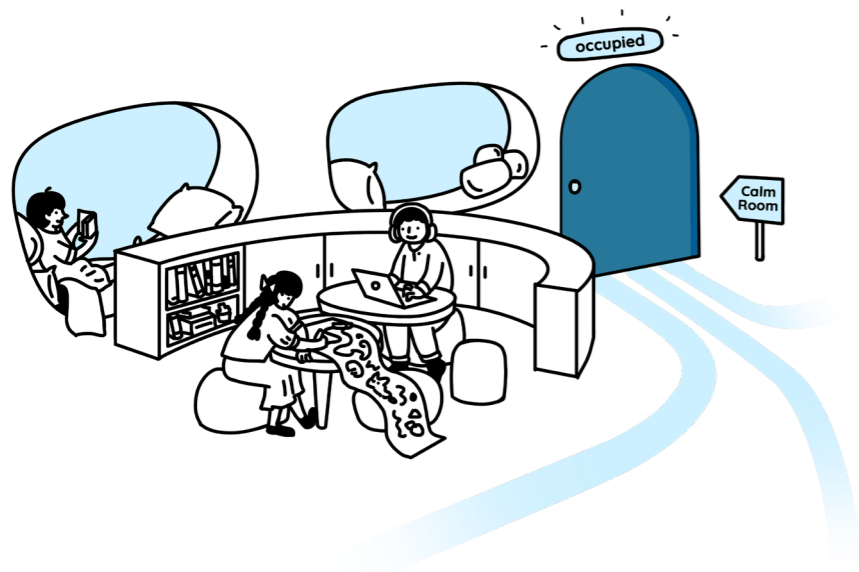
Consider the environmental factors that make a space welcoming for people to linger and form communities in. Ensure that the space has comfortable visuals and acoustics. Other amenities like the provision of free Wi-Fi and comfortable seating also contribute towards making spaces more welcoming as well.

Create a comfortable safe haven of “yes” spaces

A comfortable place is where our needs are met and we feel free from judgement. Making community services more inclusive could mean providing “yes” spaces where people, in particular persons with autism or intellectual disabilities, feel accepted for who they are and are free to be themselves.

Spatial

Easy-to-find calm rooms



Provide calm rooms for those who may experience a sensory overload, such as persons with autism. These rooms should be easy to locate, so that those who need it can quickly access these spaces. The presence of calm rooms or cool down booths signal an acceptance and normalisation of the needs of persons with autism, thus creating a more inclusive experience.

Service and programming

Dedicated spaces for small group gatherings

Set aside rooms and open space for people to hold get-togethers for niche hobbies. This facilitates the formation of small communities based on shared interests and builds understanding of the spectrum of different interests and hobbies.

“ It’s an invisible disability. People around do not realise an outburst is related to autism. ”

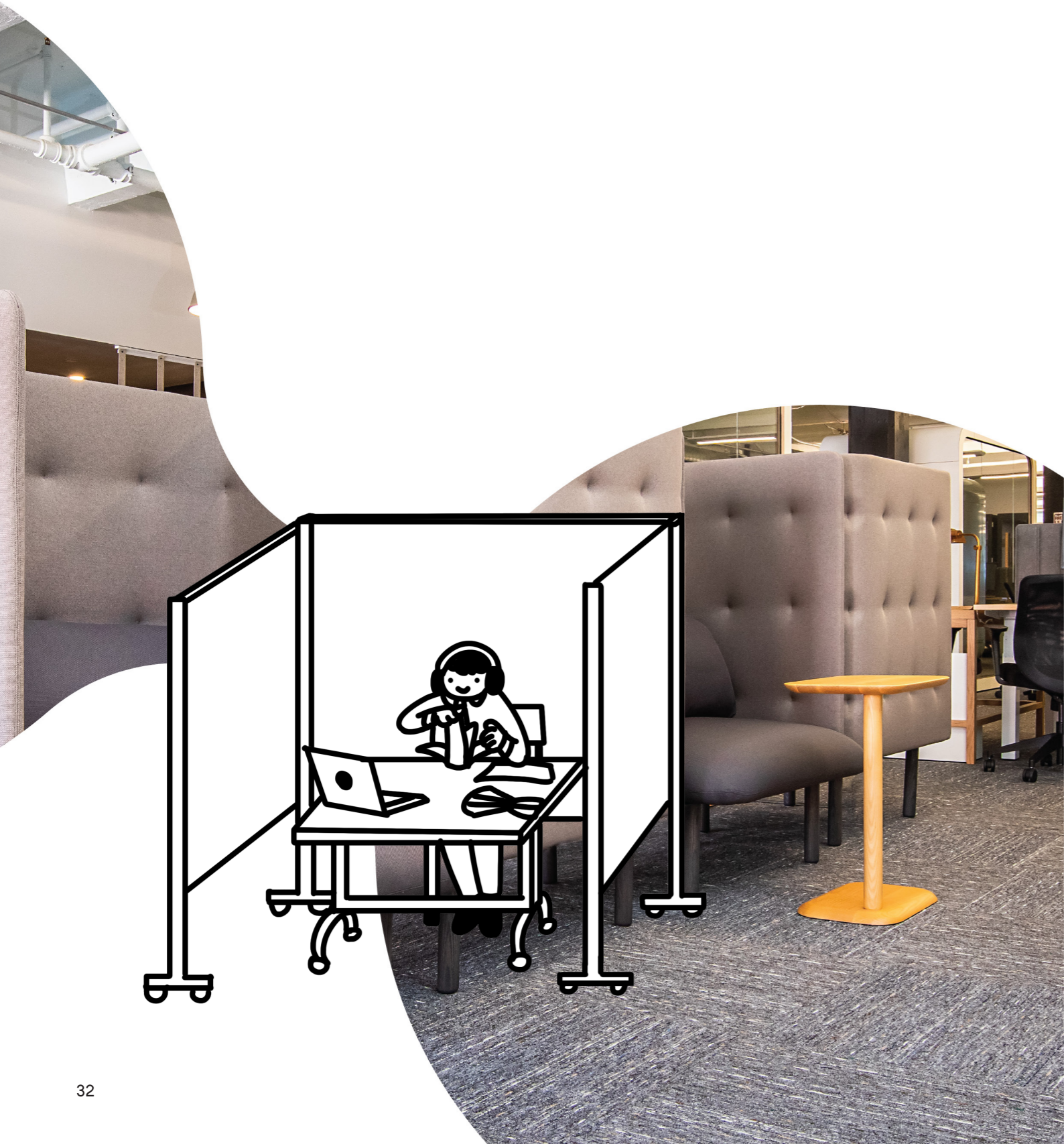
Person with autism

“ To him, the outside world is like [telling him] ‘no, no, no’ [to being himself]. EV [the Enabling Village] is somewhere he can be himself... safe place he can assimilate with the outside world. ”

Caregiver of a child with autism



Seed Ideas for INCLUSIVE TRAINING SPACES



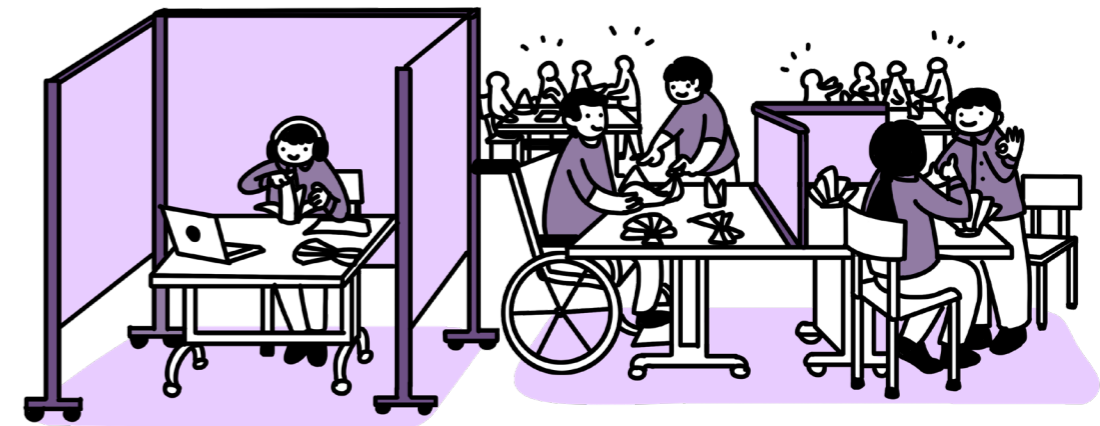
Principle 5: Enable options and choice

Consider sensory comfort and personal space needs

Training can be a long and draining process, the effects of which are often felt more by learners with disabilities. In making a training space more inclusive, training providers should consider how personal comfort can be maximised throughout long training sessions, in particular those that relate to the different sensory inputs (e.g. textures, sounds, temperature, visual clutter) and amount of exposure/interaction to other learners.

Objects

Flexible dividers and partitions



“ [Those with sensory sensitivities] do need more dedicated space... [For example,] divider[s] between seats. It helps them stay focused, especially those who are more easily affected by someone talking or making some noise. ”

Service provider who works with persons with disabilities

Consider using dividers and partitions that can be flexibly deployed or removed during training sessions according to training needs and learners' preferences. Such dividers reduce sensory stimuli (e.g. dampen sounds, block off visual distractions) for learners to better focus and create smaller pockets of personal space for those who need it. This would provide a more conducive environment for some persons with autism or intellectual disabilities. These dividers can then be removed when group work or discussions are required.

Objects

Adjustable seats and tables

Consider providing seats and tables with easily adjustable height and angles, to accommodate different learners' comfort levels and use of physical mobility aids.

Provision of real-life spaces for training

Learning and retaining new skills is usually more effective when they can be applied in a real-life context rather than a classroom. However, real-life environments tend to be less forgiving of mistakes that may be made during the learning process. Where possible, conduct training in real-world situations and spaces to reinforce skills imparted in the classroom and allow for mistakes to be made without disrupting operations or others.

Spatial

Welcoming practice within commercial spaces



Training providers can consider partnering with other businesses, such as food & beverage establishments or retailers, to welcome persons with autism or intellectual disabilities to these spaces so that they can practise everyday skills in a real-life setting. Training providers could work with their partners' staff on interacting with persons with disabilities, introducing "training hours" or "quiet hours", or even designating a part of these spaces to be more accommodating to them.

“ A safe place to learn right and wrong, to learn life skills... how to make mistakes safely so that you can gain independence. ”

Caregiver of a child with intellectual disability

Spatial

Training spaces that imitate actual environments

Create replicas of everyday environments in your training spaces to facilitate the transfer of skills from training to the actual environment. For instance, using a training room that is designed to look like a home when teaching independent living skills can help persons with disabilities apply these skills in their own homes more readily.

Introduce short periods of independence away from caregivers

Some caregivers hesitate to allow their care recipients to travel or carry out activities independently due to safety concerns. To address caregivers' concerns, training providers and other establishments, especially those that partner with training providers, could create safe spaces where learners with disabilities can apply their skills independently without getting hurt. This also allows caregivers some respite from their caregiving duties.

Spatial

“No caregiver” independence zones



Design for separate but adjacent spaces for caregivers and their care recipients to enjoy activities on their own for a period of time. Incorporate services, space design, and protocols to ensure that learners with disabilities are safe and cared for while apart from their caregivers.

“ Parents can be overprotective. [The children] lack friendships because they are not allowed to mingle out much. ”

Caregiver of a child with intellectual disability

Spatial

Experimental sandbox

Create spaces where learners with disabilities can try new tools, skills, or objects in a free-for-all manner. For example, a space can be set up for people to freely try out assistive technology devices in a safe manner, with help from staff when needed, at their own pace.

Seed Ideas for INCLUSIVE WAYFINDING

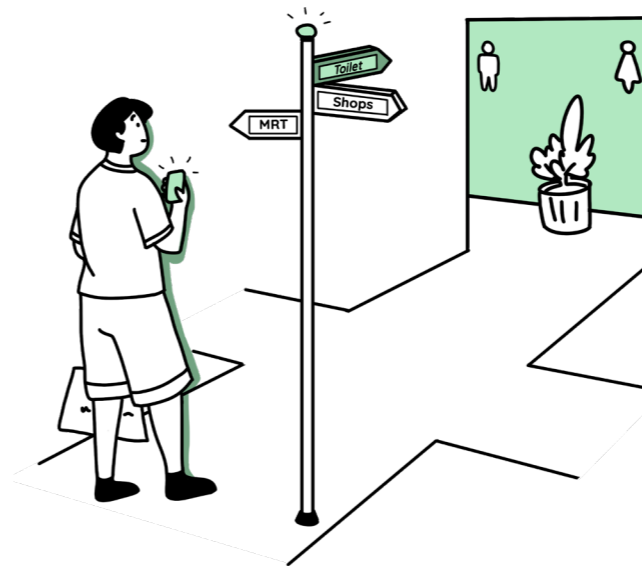
Principle 3: Support independence

Have confirmatory directions

Navigating to unfamiliar destinations can be daunting for everyone, and especially so for persons with disabilities. Hence, spaces could be designed to include opportunities for people to double check their routes and be assured that they are moving in the right direction, using a variety of mediums to ensure inclusivity for all.

Spatial

Direction kiosks and beacons



Install beacons at important junctions to provide confirmatory cues that people are walking in the right direction. These beacons could either provide audio cues upon proximity to visitors or by visitors pressing a button. They can even connect to smart phones to provide more detailed wayfinding information (e.g. through Bluetooth signals). This is particularly useful for signaling visitors to essential amenities, like washrooms, in larger and more complex compounds.

“ Tactiles are good, but you might not know which way to turn. There should be some signal to tell you what is on your left and right at critical junctions. ”

Person with visual impairment

Spatial / Objects

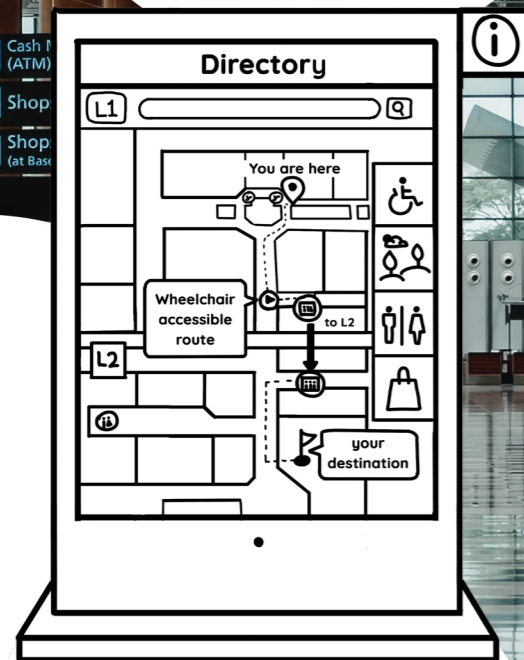
Distinct visuals/sounds/scents at key junctions

Consider using landmarks to mark out key areas, meeting points, and junctions. They can function as points of references when providing wayfinding information (e.g. “The toilets are located to the left after the fountain”). These wayfinding signals can include distinctive visuals (e.g. large murals, statues, colours), sounds (e.g. ATM machines) and scents (e.g. herb garden).

Spatial

Floor markers and directional lines

Provide more specific guidance to key destinations by adding floor markers and directional lines. Instead of only indicating general directions, as typical signposts do, use floor markers to provide a directional path all the way to the destination. Also consider marking these with high-contrast colours to increase visibility for persons with low vision.

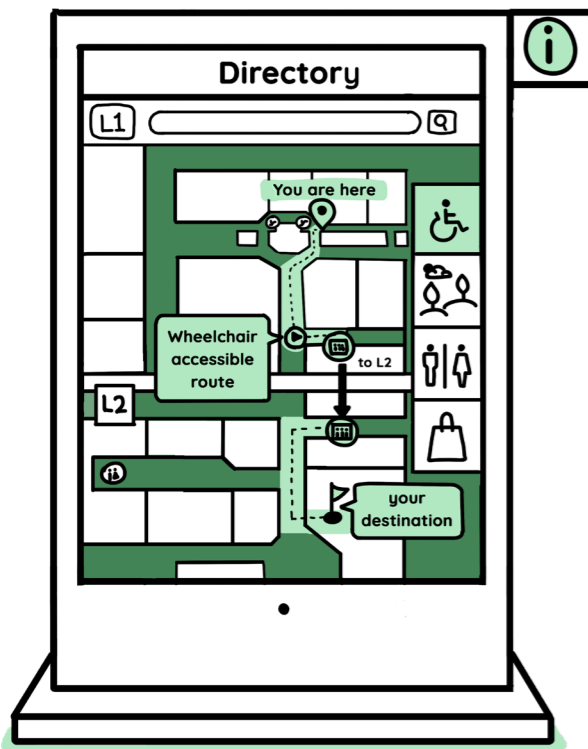


Enable choice in wayfinding routes

There are usually multiple ways to get to the same destination. However, most wayfinding solutions, such as electronic directories, tend to provide only the quickest route. This route may not always be barrier-free and accessible for persons with disabilities (e.g. may involve stairs or steps). As such, there is a need to provide persons with disabilities with a variety of accessible wayfinding options to choose from.

Communication

Directory with different routes to the same place



Create a directory that can provide multiple route options, beyond just the quickest or shortest one. The options should include fully accessible routes to the destination. Users can then choose the best route for their needs and purposes (e.g. wheelchair-accessible routes, quietest routes, routes that bypass the least number of stores).

Spatial

Leverage audio signals

Audio signals can augment visual information, especially for persons with visual impairment. For example, similar to how lifts may provide audio announcements on whether it is going up or down, escalators could also provide sound outputs at its start and end. Consider using ascending and descending tones to indicate whether the escalator is going up and down.

“Signages only show the fastest way... It doesn't tell you that the fastest way is not accessible.”

Wheelchair user

Retain the human touch

Customer service is a key aspect of an inclusive experience. Even as the use of technology becomes more prevalent, sometimes the easiest way to get help is still to ask someone. Create an environment with a strong human touch, where possible, to ensure that help is readily available whenever it is needed. This becomes a reliable alternative to wayfinding technology, which is yet to be a perfect replacement for human guidance, and for people who may be less comfortable with using technology.

Spatial

First touch welcome reception



Ensure that visitors can quickly identify who they can approach for help upon entering into your space. Positioning welcome desks or reception counters close to the entrances makes it easier for visitors to locate them. If this is not feasible (e.g. due to spatial constraints), a simple alternative is to ensure that staff located around the entrance area are trained in assisting persons with disabilities (e.g. cashier at the entrance of the retail shop, staff counter at the doorway of a cafe, security guard at the entrance of a building or compound).

Service and programming

Sighted guides

For larger spaces, you can consider training and appointing staff to be sighted guides for visitors with visual impairment.

“I was going around in circles until I bumped into the security guard.”

Wheelchair user

Make your own space inclusive

We hope that the principles and ideas shared in this playbook inspire you to start your own inclusive space design journey. We encourage you to make these ideas your own, by tweaking, adapting, testing, and refining them, and to consider these ideas alongside other resources and guidelines on inclusive design. This is just the beginning to creating truly inclusive spaces for everyone to use and enjoy.

Additional Resources

Check out these additional resources from SG Enable:

[Tips and guidelines on how you can build a more inclusive Singapore](#)

[i'mable by SG Enable](#)

[Organising Inclusive Events: A practical toolkit to build social inclusion](#)

[How to be Disability-Inclusive at Work](#)



Photo of the amphitheatre in the Enabling Village:
Accessible ramps were built and integrated into the steps so that wheelchair users are able to move up and down the amphitheatre.

In support of



**Making a Difference.
Empowering Inclusion.**

