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Essential for Some, Useful for All

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List of acronyms used

ADHD	Attention Deficit Hyperactive Disorder
ASD	Autism Spectrum Disorder
B2B	Business to Business
B2C	Business to Consumer
Demos (Dēmos)	A Belgian non-partisan public research and advocacy organisation established in 2008.
ICD	International Classification of Diseases
ICF	International Classification of Functioning, Disability and Health
NGO	Non-Governmental Organisation
T-Guide	eLearning Course “Tourist Guides for People with Learning and Intellectual Difficulties in Europe”
UN CRPD	The United Nations Convention on the Rights of Persons with Disabilities
W3C	World Wide Web Consortium
WCAG	Web Content Accessibility Guidelines
WHO	World Health Organisation
VZW	A non-profit (charity) organisation in Belgium (Vereniging zonder winstoogmerk)

Terminology used

Cognitive functions enable a person to acquire knowledge and understanding. Six basic cognitive functions are: attention, information processing, memory, orientation, executive processes, and social cognition.

Visitor profile: a description of the needs, interests, behaviours, and demographic characteristics of an organisation’s visitors. It can look like a portrayal of a real person with a name and image.

Easy-to-read language: an umbrella term for all language modalities with different simplifications (e.g. easy language, plain language, easy reading). It aims to be comprehensible to anyone by generally avoiding complicated words and sentences.

Intellectual disability: any of several conditions characterised by subnormal intellectual functioning and impaired adaptive behaviour identified during the individual's developmental years.

Market segment: buyers with similar needs, behaviours or characteristics that might require different marketing strategies.

Mental impairment: a loose category referring to a broad spectrum of conditions, from congenital conditions (e.g., Down Syndrome) to developmental disabilities (e.g., intellectual disability, autistic spectrum disorders), to acquired cognitive disability (e.g., after an injury or stroke), to age-related impairment (e.g., due to Alzheimer's or dementia).

MindTour: the research project "Mindful tourism services for people with mental disabilities".

Personas: fictional characters created on the basis of research and intended to represent different user types who might use a service, product, or site in a similar way. Creating personas helps the designer to understand users' needs, experiences, behaviours and goals.

Person-centred framework: an approach to disability that focuses on the support system that would allow a person to achieve their potential in social and economic participation, rather than only respond to what an individual cannot do. It is the foundational principle of the International Classification of Functioning, Disability and Health (ICF).

Prototype: cheap and easy-to-use solution to test if a particular service works.

Service design: a methodology that follows specific steps and uses different tools to help solve problems and develop services based on people's needs.

Service design tools: research methods and worksheets that help understand visitors' needs and create suitable solutions (services or products to solve visitors' problems).

Target market: a market segment that an organisation decides to serve.

Touchpoint: a point (usually in physical space) of contact or interaction between a business or service organisation and its visitors.

Universal design: the design and composition of an environment that can be accessed, understood and used to the greatest extent possible by all people regardless of their age, size, ability or disability.

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What is this book and how should I use it?

Why this book? It serves as a guide towards making tourism services more accessible for people with mental impairment and/or disability.

Who's it for? You may find this book useful if you represent 1) a tourism service provider; 2) a tourism organisation; 3) policy makers; 4) an association of/for people with mental impairment and/or disability; 5) the wider public interested in improving tourism services for people with mental impairment and/or disability.

Where does this information come from? The content of this guidebook was built through desktop research, literature analyses, surveys and interviews with several NGOs, conversations with tourism and mental disability experts, a field study with service users, and the development and testing of prototypes by various academic and tourism partners in Belgium, Estonia and Latvia.

What can I expect from this book? This book 1) contains educational information regarding mental impairment; 2) is likely to encourage and inspire working with people with mental impairment; 3) serves as a tool for increasing accessibility through designing innovative services in museums and other attractions; 4) provides a self-assessment tool to help you identify services that could be added or improved in your circle or organisation.

How should I use this book? This book is structured to serve particular interests or preferences that you as a reader may have – you will not need to read the entire book to find the required information. You can skip to the sections or topics that might be of interest to you at a specific time. What information are you currently seeking?

I want to:

► Understand the importance of inclusive services in tourism

This you will find in the Introduction, where you will learn (1) more about the importance of universal design in tourism as well as about specialised services for people with mental impairment and (2) the benefits of developing a more inclusive tourism industry. Some examples of innovations leading towards inclusiveness are shared. Also, people from both the tourism industry and the target audience who played an integral role in testing the service prototypes share their first-hand experiences.

► Understand visitors with mental impairment better in terms of how impairment works and what to focus on if my organisation decides to become more inclusive

Chapter 1 serves an educational function to help you better understand mental impairment in terms of various levels of mental functioning that may be affected. A person-centred framework can help the service provider address and compensate

for the impaired functions. Chapter 1 also introduces five profiles of people with mental impairment, thus sketching how diverse their aptitudes, needs, interests and preferences may be.

▶ **Understand how visitor experiences should be designed and the types of tools**

I can use to design such services

In **Chapter 2**, you can learn more about service design, together with a set of step-by-step instructions or tools that you can follow in designing more inclusive tourism services.

▶ **Develop, improve and try out new service prototypes**

Chapter 3 provides guidelines on how to investigate visitor needs, develop, improve and try out new prototypes within your organisation. You would have to start by identifying your target market and its needs, and analysing the customer journey. The chapter further provides a special *Space and service design toolkit* as well as practical examples of how it could be applied to create an optimal user journey.

▶ **Inform the market about how my organisation provides inclusive tourism and services**

Chapter 4 will help you understand people with mental impairment as a market segment and the manner in which to communicate optimally with your market through various means, such as text, signage, images, and specialised website guidelines, among others.

▶ **Assess the current state of my tourism organisation regarding special tourism services and inclusiveness**

Suppose you want to determine where your organisation finds itself on the journey towards becoming more inclusive through specialised or adapted tourism services. In that case, you can use the *Self-assessment tool* in the **Addendum**. It highlights key phases during a visitors' experience, where statements are made according to which you can rate your organisation's progress. It, furthermore, provides additional information that your organisation could potentially apply to increase your rating.

People with mental impairment as a market segment. The EU perspective

Before you and your tourism service(s) or attraction can become more accessible for people with mental impairment, it is essential to understand the current situation in Europe and the importance of becoming more accessible. Such improvements not only lead to improved social equality but also provide benefits from an economic perspective. This chapter will chart some background on why accessibility is essential and introduce an outline of this book.

I. The EU's stance on tourism & heritage for people with mental impairment

Globally, around one billion people (or about 15% of the global population) live with some form of disability¹, which is increasing annually. From this number, around 450 million people are affected by mental or neurological disorders. In Europe alone, 15% of the population experience some form of mental disability, of which 10% are due to moderate impairment and 5% due to severe. The presence/severity of impairment might not be the only/main reason why people have difficulty with participating in social activities. The context, personal and external factors, also play a role (e.g. can the ticket office clerk take time to listen to each visitor if there is a long cue?).

Being socially included is every person's **need and desire** because social inclusion provides emotional support and fosters positive mental health. Moreover, it is a person's **right**. International conventions, e.g. the United Nations *Convention on the Rights of Persons with Disabilities* [henceforth UN CRPD], have been adopted to promote the social inclusion of people with disabilities. According to Article 30 of the UN CRPD, "States Parties recognise the right of persons with disabilities to take part on an equal basis with others in cultural life, (...) in recreational, leisure and sporting activities"; thus, specific measures need to be taken to ensure that those with impairment (including mental impairment) have full and equal access to cultural processes and materials; that they should be able to enjoy television programmes, theatre and other cultural activities; and that they should be able to enjoy places with cultural performances or services, such as museums, to their fullest. Implementing the UN CRPD, the states also need to ensure that persons with disabilities have access to recreational and tourism venues as well as to services from those involved in the organisation of recreational, tourism, and leisure activities.

In 2019, the European Union approved *The European Accessibility Act* to increase and support the accessibility of products and services in its member states (requirements must be implemented by 2025). The Act regulates the digital and electronic accessibility of common services, such as banking, transportation, and television. EU member states are working on accessibility issues in general. In some states, there is (still) a lack of clear guidelines to make tourism services more inclusive. In other states, guidelines exist, but the implementation (still) poses challenges and is often fragmented.

While travelling, people with mental impairment will also need to make use of a host of tourism amenities, such as accommodation facilities. Enabling people with mental impair-

1 In this instance, the term 'disability' is used as an umbrella term for (mental) impairment, activity limitations and participation restrictions (WHO, 2021).

ment to have wholesome touristic experiences is not only a fundamental human right, but it will also benefit the European tourism industry and the various EU countries' economies.

II. The benefits of a more inclusive tourism industry

More than half of EU citizens or residents with mental impairment travelled between mid-2012 and mid-2013. The total number of trips taken by people with such disabilities amounts to around 783 million trips within the EU alone (both domestic and intra-Europe travel), thus making such trips around 12% of the European tourism market. The total direct contributions of this travel segment to the European tourism market in 2014 were estimated at 352 billion Euros. If fully utilised and grown, this tourism segment holds strong potential for tourism development in the EU.

Research conducted in Belgium, Estonia, and Latvia in 2021 shows that people with mental impairment are active users of different tourism services. Moreover, they are willing to be even more involved in tourism to escape everyday routine, test their capabilities, and gain new knowledge and experience. The question is not whether people with mental impairment want to use tourism services; the question is how to ensure that they can access various services and how to make services and attractions inclusive. People with mental impairment, and other disabilities in general, tend to

- **Travel during off-peak periods**, thus minimising the gap between on- and off-peak periods in the industry.
- **Travel in groups**, which translates into increased spending at a destination.
- **Make return visits**, thus creating a more sustainable market segment.
- **Spend more time and money than the average visitor** in some cases.

The information above shows how important this market segment is. For the tourism industry to truly embrace this segment and close the gap in tourism equality, the industry would need to understand this market segment and, to an extent, adapt services and products on offer to make them more accessible for the representatives of this segment.

III. Current steps towards becoming more accessible

The world, especially the EU, is waking up to the idea of being more inclusive and realising the benefits of taking steps towards being more inclusive.

The tourism sector, including accommodations and attractions, such as museums, are working towards making its infrastructure, products and services more accessible to people with disabilities. These include unique, larger parking spaces, ramps to the building, replicas of museum items that visitors may touch, and other physical adaptations. Even services facilitating communication with people with vision and hearing impairment and additional staff training have been developed. Various resources have been designed to help the tourism industry become more accessible. For instance, the DBSV (*Deutscher Blinden- und Sehbehindertenverband e.v.*) guidelines provide precise information and steps that can be taken to become more accessible for people with sensory impairment, such as blindness or deafness.

The Belgian public research and advocacy organisation Demos takes it a step further through visualisations of what the spaces in and around a tourist attraction, for instance, a museum, should look like – they also provide guidelines on how staff should address people with

mental impairment. The *COME-IN!*-project developed guidelines and a training handbook for museum operators in Central Europe to create more inclusive museums for people with primarily physical impairment. *Estonian Tourist Board* has gathered different sources with suggestions and guidelines on how to design accessible services for people with disabilities. Sources include information about how to compile easy-to-read texts, how to help people with disabilities, about accessible websites and much more. Materials are developed mainly by organisations like the Ministry of Social Affairs, the Estonian Chamber of People with Disabilities, etc. Materials are published on the following link: <https://www.puhkaeestis.ee/et/turismiprofessionaalile/tootearendus-ja-kvaliteet/ligipaasetav-turismiteenus>. (only available in Estonian)

Different projects have been initiated and implemented by the NGO *Vaimukad* (www.vaimukad.ee), for instance, projects about improving accessibility in Estonia via easy-to-read texts. Tallinn Social and Health Care Board has developed a webpage with accessibility information in Tallinn: <https://lips.tallinn.ee/>.

In Latvia, the non-governmental sector, with organisations such as Sustento, Apeirons and others, is strongly involved in promoting accessibility to services and the environment. They have helped develop guidelines and recommendations for universal design, including for the tourism sector. Since 2014, several projects aimed at accessible tourism have been implemented thanks to the *Interreg Central Baltic* programme in which *Apeirons* and Latvia's Kurzeme Planning Region have participated. The following results of that programme projects can be mentioned: (1) the *Accessibility Guidelines for Adapting Tourism Infrastructure, Products and Services for People with Disabilities*, (2) the Nature Trails' Guidebook published in 2021 and containing tips for 45 nature sites accessible to all in the western part of Latvia, (3) the portal www.maperions.eu that introduces dozens of accessible nature sites and trails throughout Latvia, some of them with audio guides and tactile objects. Besides, the Latvian NGO *The Easy Language Agency* promotes awareness of Easy Language and assists in developing texts in it.

Many resources contribute toward a more accessible tourism industry; however, most focus on physical thresholds/challenges. This is because it is more difficult or trickier to make tourism more accessible for people with mental impairment. The reason is that physical impairment is somewhat more visible (tangible) while mental impairment is less visible (or mostly intangible). Some research has already been done on this topic; however, most of these studies focus on a single form of mental impairment; thus the question of accessibility for all has only rarely been addressed.

Frequently, research and museum accessibility upgrades focus on making such places more accessible either for people with physical impairment or for persons with specific mental impairment. One example is found in Ireland where the *Azure project* worked towards making artwork and social experiences at museums more accessible for people with dementia and their families. It was applied at the Irish Museum of Modern Art as a pilot study. The T-Guide (or *Tourist Guides for People with Learning and Intellectual Difficulties in Europe*) e-learning course, in its turn, focuses on people with learning and intellectual difficulties: it provides special training for tour guides working or planning to work with that category of visitors (<https://www.t-guide.eu/?i=t-guide>). The handbook of *Creative Differences* is an example of breakthrough research carried out in the United Kingdom, which

stems from research on the impact of music on neurodiversity within the creative industries. It provides guidelines on how to incorporate people with various mental impairments into a diversity of situations.

The studies show that certain impairments allow for higher quality outputs within specific fields and that studies on particular impairments contribute to understanding people with mental impairment as a heterogeneous group. The research on mental impairment is quite broad but fragmented when one aims to apply it coherently within the tourism industry.

IV. The MindTour project and the guidebook

The primary purpose of the MindTour project and this guidebook was to make the tourism industry (with a focus on attractions, such as museums and amenities) more inclusive for all, paying particular attention to specific target groups, such as people with a broad spectrum of mental disabilities, for instance. Instead of focusing on a single form of mental impairment, this guidebook worked towards identifying characteristics that various forms of mental impairment have in common. It aims to provide collective steps to overcome possible obstacles that people with mental impairment may encounter while travelling or visiting places of interest.

Through this guidebook, the tourism industry will provide people with mental impairment with good tourism experiences and help unlock an untapped market segment that can increase the revenue generated through tourism and create an additional, loyal tourism market.

More specifically, this guidebook does the following:

1. It provides informative material regarding mental impairments and how to approach them within the tourism industry.
2. It provides more information regarding service design in the tourism industry, especially regarding accessibility for people with mental impairment.
3. It provides concise guidelines and practical tips for improving accessibility from a point of view of accommodation and attraction.
4. The book also examines the marketing and communication dimensions of accessibility.
5. A self-assessment tool is provided at the end, which can be used to analyse your tourism business/amenity in terms of accessibility while also providing an idea of how the business/amenity will need to work towards becoming more accessible for people with mental impairment.

V. Notes from the project industry partners

The industry partners who played an integral role in this project, shared their experiences of the project and the project's importance to them.

Pärnu Museum, Estonia – It is vital for Pärnu Museum that the heritage and cultural history is accessible to everyone without exception, and the museum is more than willing to take additional actions to make it so. Taking part in the MindTour Project gave us an opportunity to bring history closer to one group and make the museum more accessible. During our everyday work, we see more and more people with physical and intellectual disabilities who want to visit museums, and we are more than happy to provide them with a safe and welcoming environment.

Dr Guislain Museum: The Dr Guislain Museum strives to be inclusive. A museum accessible and meaningful to everyone, a place where everyone feels welcome and safe. Therefore, we gladly participated in the MindTour project. Collaborating with the students of the Space and Service Design programme (at Thomas More University of Applied Sciences) opened a new path for us, and gave us new perspectives. Thanks to the strong commitment of the students and the cooperation of *De Bolster*², the project became a success.

Bea, mother of Stéphanie (26 years old): The MindTour Toolkit is very good for preparing for a museum visit, allowing you to visit the museum together in a relaxed way. You can prepare for the museum visit in your own – safe – environment, in an interactive and playful way.

The toolkit is very clear and convenient to use. The coach is an excellent guide.

Annick and Katrien, companions at vzw *De Bolster* (Belgium): In the past, we often tried to visit museums with our residents. However, each time we encountered various barriers. Beside frequent physical thresholds, the visit itself turned out to be quite a challenge. Tools to better understand art and culture and make them more visible to our clients were often missing. When we were asked to help think about how to make a museum with such a difficult theme more accessible, we felt very much at home and wanted to grab this opportunity with both hands. The manual will ensure that our clients, who have so many talents, can also visit a museum in a way that is adapted to their needs and abilities. This allows them to participate even more in society. We welcome this with all our hearts!

Līga, *Zeit Hotel* (Latvia): Being involved in the MindTour project has been an educational and exciting process. Although *Zeit* has experience hosting guests with mobility impairment, we understand there is always room for improvement. The desire to improve and diversify the possibilities and offers has been the primary motivator to get involved in the MindTour project.

Zeit is a popular tourist destination because of its variety of entertainment options. It is a place for everyone, and the story that started in 2018 continues today. The experience of every guest of *Ligatne* and *Zeit* begins with the first signs entering *Ligatne*, getting off the transport, and feeling the air. We know that *Ligatne* is a winner because the village is located in the Gauja National Park. Guests who want to feel the nature go to *Ligatne*. We tend to overlook the inconveniences of guests with special needs daily because we have not encountered them ourselves. Therefore, we especially appreciate their visit to *Zeit* so that we can improve the environment and service, taking into account the suggestions.

The cafe menu was developed in a smaller paper format during the project. This option allows guests to place their order while calmly sitting at the table, taking the time to make choices. Next, the order is handed over to the cafe employee. We have also received other suggestions, for example, for more visible signs to facilitate navigation through the spaces of *Zeit*. The *Zeit* staff, who have served people with functional and mental disabilities, admit there was trepidation initially. Assistants' suggestions on how to make the first communication help a lot. A good assistant is a prerequisite for successful cooperation. We understand that positive communication is essential. Next, we learn the nuances that come in handy when serving *Zeit* guests. The more we encounter special cases, the more valuable experience we gain.

2 *VzW De Bolster* is a charity organisation in Belgium. See more on <https://www.vzwdebolster.be/>

Chapter 1

Visitors with mental impairment and person-centred framework in addressing their needs

In literature specific to tourism, three themes are identified as critical to the social inclusion of people with mental impairment: (1) **being accepted as a person** beyond the mental impairment, (2) **being actively involved** in activities, and (3) **receiving (in)formal support**. Inclusion can yield several positive intra- and interpersonal outcomes, e.g., mental and physical health benefits, personal development and social inclusion, which enhance the quality of life and life satisfaction.

1.1. Definition of mental impairment

The label '**mentally (or intellectually) impaired**' is used to refer to a heterogeneous group of people, ranging from children with congenital (inborn) conditions (e.g., Down Syndrome) to developmental disabilities (e.g., intellectual disability, autistic spectrum disorders) to adults with an acquired cognitive disability (e.g., after a stroke), to age-related impairments (e.g., due to Alzheimer's or dementia). It should be kept in mind that the concept of 'mental impairment' is **socially constructed**, namely, what it means, and how it is identified and measured has varied over time and across cultures. For instance, in the Western world, 'developmental disability' is a term that, in the last decades of the 20th century, superseded the term 'mental retardation'.

On the other hand, **each person**, with or without a mental impairment, **is unique**. Therefore, the best starting point for a tourism service provider is open-mindedness about their prospective visitors' needs, capabilities and wishes. Instead of focusing on people with mental impairment, a tourism service provider can think upfront about adapting a tourism service/ attraction to one specific need. An example of such an adaptation would be giving straightforward written directions in the official national or regional language (or in English) to overcome speech comprehension problems. This adaptation will be helpful for some people with mental impairment and a whole range of other visitors, such as those inattentive to oral explanations. On the other hand, people who are non-native speakers of the country's official language (or a regional language) would not be in the mood to read an extensive text.

How can a tourism service provider be **open-minded**? The answer is: to adopt a **person-centred framework** related to every visitor. Such a framework for understanding disability has been advanced by the World Health Organisation in the *International Classification of Functioning, Disability and Health* introduced in 2001 (henceforth: WHO and ICF).

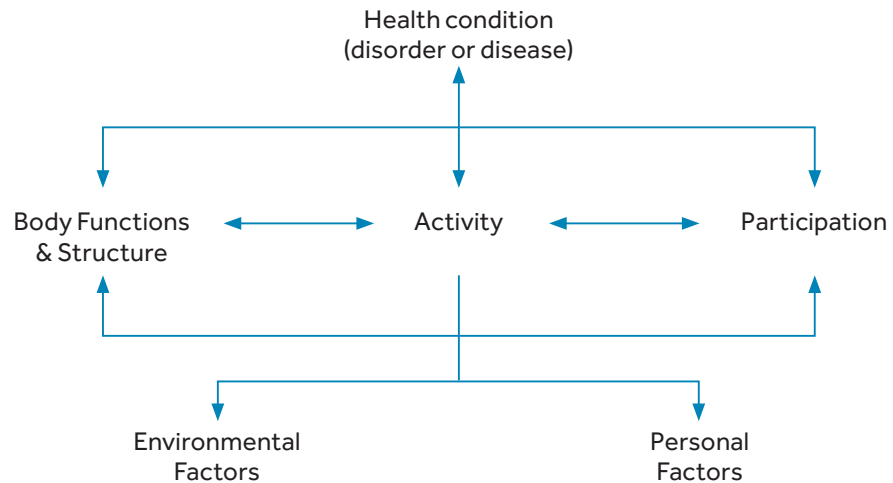


Figure 1.1. Person-centred framework.

The WHO emphasises the crucial influence of environmental and personal factors on an individual’s functioning: “[Dis]ability is no longer understood as a feature of the individual, but rather as the outcome of an interaction of the person with a health condition and the environmental factors.”³

Figure 1.1 outlines the main components of ICF. ‘Impairment’ is accounted for by a combination of factors. A disorder or disease usually manifests as problems in body functions and structure (including mental functions), such as a significant deviation or loss of language comprehension. Activities and participation, however, may be restricted (or, vice versa, enhanced) by the range of physical or mental functions and environmental and personal factors.⁴ Environmental factors range from social to physical factors, for example, from social support (a proxy reads a written text out loud) and attitudes (is ‘reading out loud’ socially accepted?) to climate, terrain, building or exhibition design (where is the annotation text located vis-à-vis the eye-level?). Personal factors refer to characteristics such as the visitor’s living situation, education, gender, and ethnicity. However, components of the ICF framework can be challenging to define, given cultural differences in the interpretation of concepts. For example, how does someone interpret ‘health’, as a static absence of disease or as a dynamic ability to deal with physical, emotional, and social challenges in life?

Since every person is unique, we cannot provide a formula that will always allow adapting every tourism service or attraction to every visitor’s need, capability, and wish. Instead, tourist services and attractions can be designed to be **inclusive for various groups** of visitors, provided that attention is paid to all components of the ICF framework. This implies that one can adapt the tourist service/attraction to the specific capabilities of a specific visitor without taking on a patronising attitude. For example, giving straightforward written directions at eye level can be combined with an audio guide or a QR code at wheelchair height referring to the exact directions. In this way, visitors themselves can choose which presentation method suits them best at a particular moment.

3 Schneidert, Hurst, Miller & Ustun, 2003.

4 Functioning can be viewed in two perspectives – the individual and the societal. *Activity* is the execution of an action by an individual and represents the individual perspective of functioning, whereas *participation* is a person’s involvement in a life situation and represents the societal perspective of functioning. (WHO 2001, 221).

1.2. Different aspects of mental functions

Since tourism services and attractions often involve learning new things, discovering new routes, and forging new relationships, a service provider needs to discover various facets of human cognitive abilities. Cognition is defined in Oxford Languages as “The mental action or process of acquiring knowledge and understanding through thought, experience, and senses”. Cognition can be separated into multiple functions, which are often executed automatically. Being more aware of these automatic functions will help tourism service providers to deal with the target group. (The cognitive functions also account for the features that render information accessible, discussed in section 4.2.1.2). Cognition comprises several aspects: attention, information processing, memory, orientation, executive processes, and social cognition (Figure 1.2).

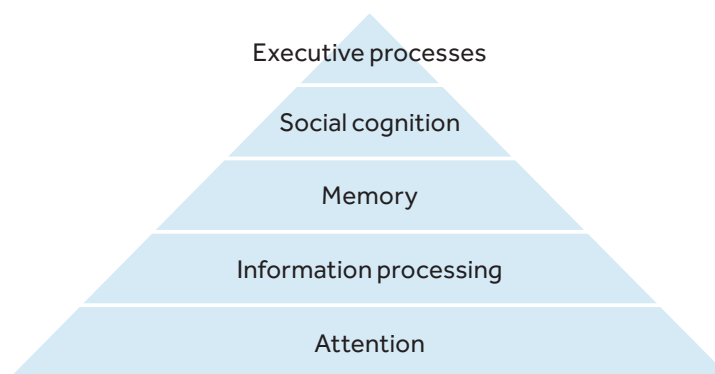


Figure 1.2:
Cognitive hierarchy

Attention is a prerequisite for other cognitive abilities. It means that a person focuses on relevant facts and filters irrelevant facts. In terms of tourism services and attractions, it means that visitors should be aware that something is worth paying attention to. Visitors must be able to notice the service/attraction, focus on it and sustain their attention on specific parts of the service/attraction. For instance, a museum can use two eyecatchers, i.e. spotlights, in a 20m² room to help visitors focus on a particular painting/object (instead of, say, a pattern in the floor)'.

Information processing is the ability to give meaning to perceptions by dealing effectively and efficiently with information received by all senses. We differentiate sensory, auditory, and visual information processing. *Sensory information processing* is about processing touch, proprioception, temperature, and pain. For tourism service providers, that could mean, for instance, letting visitors touch exhibits in a museum or slightly adjusting the air temperature in a specific room to make them more comfortable. *Auditory information processing* refers to the processing of sound, and *visual information processing* to the processing of visual information. The former could be enhanced if visitors had an option to choose an up-tempo melody in a specific room to evoke a happier feeling. For example, the latter could be accommodated by inviting the visitors to use pencils or pastels at a specific point of the tour to uplift their mood. Regarding tourist services and attractions, paying attention to the three subtypes of information processing means that tourism service providers should design the attraction so that all senses can perceive it. Some possible adaptations are:

- introducing the destination via a visual portrayal of the site (see Figure 1.3),
- planning the visit in advance by arranging concrete objects in a sequence (see Figure 1.4),
- introducing touchable objects made of different materials,
- diminishing (lowering) background noise (e.g., music, the noise of beamers/devices, ticking clock), and adapting the lighting,
- audiotaped exhibit annotations,
- installing switches/buttons for pre-recorded messages that visitors can listen to over and over again. It can replace (or go together with) a written explanation of an exhibit, e.g. a painting. (Figure 1.5.).



Figure 1.3. Introducing the destination via a visual image (with John the Baptist, under construction and outdoor).



Figure 1.4. Planning the visit upfront via arranging concrete objects

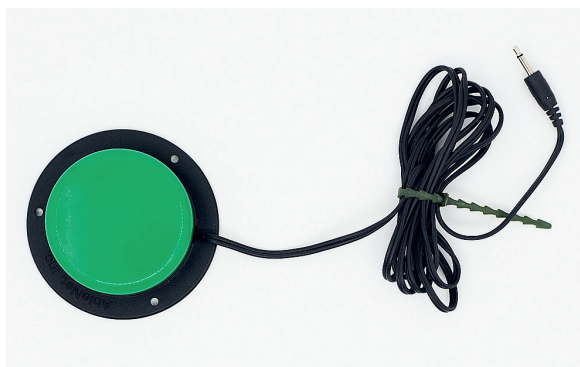


Figure 1.5. Push button for pre-recorded message

Memory is the ability to constructively encode, store and retrieve information at a later stage. In terms of tourism services and attractions, visitors visit the service/attraction with specific expectations due to former experience/knowledge of similar attractions or previous inquiries about the given attraction. Being on the spot, they can link the experience with personal and common knowledge on tourism. Therefore, it is advisable to ask visitors upon arrival what their expectations are, for instance, ask them (1) to say what exactly triggered them to come to the particular attraction, (2) to indicate on a rating scale from 1 to 10 how important sounds, visuals or temperature are for them, (3) ask them what they expect to see/hear/smell during their visit.

Orientation in time, place and vis-à-vis person means that one knows when, where and who one is. In terms of tourism services and attractions, it means that the general expectation is that visitors would come at the agreed time, arrive at the attraction, find their way at the site (e.g., a building, its surroundings, or a garden), and can move around independently and estimate how long they have already been in the place. However, if a person's mental function of orientation is somewhat impaired, they may get lost while trying to find their way in a building or its surroundings not visited before. A visitor may also have difficulties keeping the agreed-upon time. To address such problems, the service provider could think about ways of redesigning the space and highlighting the routes and directions within a building or the surrounding territory, e.g., using pictograms to mark entrances and exits, and marking the route with coloured arrows on the floor or ground. (See more on possible solutions in Section 2.1.)

Executive processes are processes that contribute to the quality of communication and action. One can roughly say that a person uses attention, information processing and memory for *what* they do and the executive processes for *how* they do it. In terms of tourism services and attractions, it means that visitors are capable of planning the visit, organising the actual visit logically, solving problems as these might occur during the visit, and being flexible in adapting their behaviour to the situation and keeping on track during the visit. For instance, keeping on track could be facilitated by a safe environment (e.g., inclined plane next to stairs) or by using comprehensible signs consistently (e.g., arrows as indicators).

Social cognition is a complex construct referring to the ability to understand the behaviour of others and to react accordingly in social situations. Regarding tourism services and attractions, visitors are expected to be empathetic and adapt their behaviour to social rules, e.g., not screaming in a public place or offending other visitors. Such social rules should be made clear to visitors through signage or by the staff of the services or attraction upon arrival.

Since each person (including those with mental impairment) is unique, their cognitive challenges will differ. Moreover, other (physical) challenges might impact a smooth visit to a tourist attraction. From this vantage point, tourism service providers should focus on the **physical accessibility** of the building. Some questions to consider: is there an inclined plane or elevator for people in a wheelchair; are corridors and passages wide enough to move around in a wheelchair; is the building accessible for people with visual impairment, and are audio guides available?

Being more aware of cognitive and physical challenges can motivate tourism service providers to address accessibility obstacles and make the service/attraction more inclusive. Moreover, providing options to overcome challenges will minimise the psychological vulnerability of minority groups, such as people with mental impairment. To improve the situation, it is essential to change the way the needs of this group are understood. How can we change the way society perceives and relates to people with mental impairment? Instead of focusing on particular impairments, people should see visitors as persons with comparable basic needs. Tourism service providers should offer **physically and cognitively accessible environments** that are convenient and safe. Flexible staff who are ready to adapt their way of communication to the target group has added value.

1.3. Visitor profiles of people with mental impairment

To make the impact of mental functions on a person's behaviour more concrete, we illustrate it with five different visitor profiles. We emphasise that **each person, as well as each tourism service, is unique**. Therefore, it is hard to adapt one service to all needs, but being aware of possible adaptations and being flexible to change particular parts of the service to the specific needs of the visitor helps make the service more inclusive. This subchapter gives some tangible examples of visitor profiles and tourism services.



Figure 1.6.

Teo and **Rita** are 12-year and 9-year-old siblings, respectively, with mild Autistic Spectrum Disorder (ASD, Asperger's Syndrome) and attention deficit hyperactivity disorder (ADHD). They are raised by a single mother with the support of a nanny. The children are well-behaved and polite. Teo likes numbers and is fascinated with funny stories. Sometimes he requires additional explanations to comprehend the clue of a story correctly. Rita enjoys playing a princess and loves nature and horses. Both children are very active and hate sitting still. Therefore, they regularly attend sports classes. Due to their health condition, they prefer to repeat familiar activities and they tend to feel bored easily.

Teo and Rita are reserved and rarely interact with other children. They primarily play together, keeping an eye on each other. Often Rita follows Teo in each step. Although he feels responsible for her, her behaviour can sometimes be too much to cope with for him. Both children like to be entertained but dislike being patronised or controlled. This can be a huge challenge since they lose their attention quickly and are not keen to process written information: not because they are unable to read, but because they find reading boring. Teo also finds it difficult to process sensory information. To overcome this challenge, he often wears headphones to disconnect himself from the environment. Occasionally

both face difficulties in respecting boundaries, and for Rita, it is challenging to wait or stand in line for a longer time. She has a fixed mindset and displays repetitive behaviour when feeling confused. She might even pinch someone to gain the person's attention.

To get out of their everyday routine, all four (Teo, Rita, their mother, and their nanny) visited an activity park and stayed in a hotel for two working days during an off-peak period (off-peak periods mean that there are fewer people and prices might be lower). To keep the visit as structured and organised as possible, the nanny looked after the children while their mother was busy with telework. In the afternoon, the nanny and the mother swapped responsibilities. The next morning, the children spent time in the activity park next to the hotel. In the afternoon, they stayed in the hotel.

Some suggestions for tourism services providers to support Teo and Rita

- Give them a **warm welcome**. Children like to be noticed and appreciated as individuals.
- Introduce them to a **specific staff member**. They can address him/her whenever needed. Do not forget to warn the children when the staff member finishes their shift. In this way, they have the opportunity to say goodbye to that person.
- **Take time to socialise**, e.g. provide a board game. It is hard for Rita to socialise with unknown people. Playing a game shifts her attention from social interaction to following rules and throwing dice.
- **Behave naturally** and let Teo watch an exhibition or enjoy other services. Give him time to observe or sense the services. Some **replicas of museum items** that he can touch provide added value.
- Provide a **'meltdown' room** or show them a 'secret' corner, i.e., a quiet place where they can withdraw from others and will no longer be distracted by overstimulation. Here Teo can disconnect from too many impressions. Alternatively, make sure it is possible to dim the lights or turn down the music volume, so they feel less overwhelmed.



Figure 1.7.

Emmanuel is a 35-year-old carpenter who lives with his partner in a small village. He loves going to the zoo in the city on his own. He had had a traumatic brain injury after a car accident 18 months ago. He can move independently, drive a car and orient himself in time and space. However, due to the trauma, he has lost a part of his left visual field (which he can compensate for while driving but forgets to compensate for while walking in new environments). Emmanuel communicates fluently but often selects the wrong-sounding word (e.g., saying 'bed' instead of 'cat'),

making it hard to understand him correctly. He has mild comprehension problems in spoken as well as written language. Furthermore, he has difficulty planning activities and estimating the time of a visit. His partner supports him in overcoming these challenges and makes it possible for him to take up his hobby again independently

Before going to the zoo, they explore the zoo's website together at home. In this way, Emmanuel already familiarises himself with the look of the zoo, possible parking lots, exciting activities and so on. Together they order a ticket online (so Emmanuel does not have to purchase it orally at the desk), and they go over which animals he wants to visit (so the visit will be structured). They undertake a virtual tour through the zoo (so the visit will be predictable).

Emmanuel will visit the zoo during off-peak periods, so there are fewer visitors, and the staff has more time to guide/accompany visitors. **At the zoo**, Emmanuel parks the car and walks to the entrance. Since walking is not a problem for him, he effortlessly moves on uneven ground. Due to his visual field problems, he might bump into someone. If so, he smiles and excuses himself, quickly forgetting the confrontation. At the entrance, he shows the pre-printed ticket and decides, depending on his current mood, to have or not to have a small conversation with the gatekeeper. He can continue the visit smoothly as long as there is clear signage. Scattered throughout the zoo are several brightly coloured clocks. They draw Emmanuel's attention, so he knows the time and can estimate when it is time to return to the car and go home. After a two-hour walk, he goes to the zoo cafeteria for a drink. He can order it orally. In case the staff member does not understand him, Emmanuel points out his choice on the menu since all options are on display there and logically arranged (warm, soft, and alcoholic drinks are listed separately). While enjoying his drink, Emmanuel can sit in a separate corner. When leaving the zoo, he buys a small gift in the souvenir shop. As long as the staff make eye contact while talking with Emmanuel and use short sentences, he can comprehend how much he has to pay.

After the visit, at home, he can once again consult the website to recall the visit to his partner. The website has added value when Emmanuel prepares for a visit to another zoo. He can look for similarities and differences, linking this experience to new situations.

Some suggestions for tourism service providers to support Emmanuel

- Use **clear signs**, e.g., write the species names of animals in the same clear font (e.g., Arial 45) on a contrasting background (e.g., purple against a yellow background).
- Use **vivid landmarks**, e.g., place brightly coloured clocks to catch visitors' attention.
- Use **predictable signs**, e.g., indicate exits with a consistent image and colour.



Figure 1.8.

Peter is an extroverted, retired teacher in his mid-seventies. Together with his wife Anna, he lives in the capital. Their grown-up children live and work abroad. Peter and Anna are still socially active; e.g., 6 times per year, they go on one-day bus tours to different places outside the city. They used to go on longer tours abroad but are not going anymore since Peter has become increasingly dependent on his wife. The reason for that is not only Peter's diabetes and his recent hearing impairment (a year ago), but Anna also noticed her husband's deteriorating memory. Moreover, it became clear that despite his apparent

cheerfulness and ability to interact in socially appropriate ways with others, nowadays, Peter can quickly become agitated, frustrated, or irritable. That usually happens when he fails to sort out routine tasks with which he had no difficulty earlier. For example, locking the door or finding his glasses can be enormous challenges.

Half a year ago, Peter was diagnosed with Alzheimer's. Anna realised that her husband's irritability was a sign of the disease. Besides taking over the family's finances, Anna became his caregiver: she sorts out his medication, organises visits and cooks for Peter. A social worker only helps with doing groceries. Notwithstanding the challenges due to Peter's loss of executive functions, the couple still strives to maintain their social life. They attend concerts, visit museums, and go on bus tours. Travelling is essential for them, not as a way of learning new things, but as an opportunity to socialise with peers.

Some suggestions for tourism service providers to support Peter

- In a hotel, **explain** to Peter **the way** to the room and **focus** his attention **on some landmarks**, so it is easier for him to orient himself.
- During a tour, retired visitors like Peter find it very **important to socialise** and converse, so ensure time is allotted when questions and comments can be voiced.
- In the restaurant, while handing out the menu, ask Peter if he can see the text well enough – in case they have forgotten their glasses, offer some spare glasses (from a set of standard magnitude).
- **Be patient** with receiving the order – visitors like Peter may forget some words and speak rather slowly. Suggest two (max. three) options if it is hard for Peter to find the correct words.
- **Provide a 'meltdown' room.** For Peter, such a room has an added value while waiting for his wife to buy a ticket at the desk. Alternatively, Peter's wife can book/buy the tickets in advance online (as the purchase process might not be very straightforward regarding debit/credit cards), so they do not have to queue and can immediately enter.



Figure 1.9.

Christine is a 34-year-old woman with moderate congenital mental impairment. She was born as the youngest child of three. She has problems with walking and standing as her muscles and strings of feet lack flexibility. She walks short distances when the road is smooth. On other occasions, she uses a wheelchair. She suffers physical pain, but often she does not know how to express it. At those times, she is moody and irritated, does not want to communicate and refuses to participate in any activity.

Christine has moderate communication skills. She likes to meet and communicate with people but needs time to make contact and feel safe with strangers. She can read or write short texts and knows numbers but cannot calculate. She attended a vocational school. Nowadays she works as a cleaner 6 hours per week at a local company near her home.

Her parents and other siblings offer her a lot of love and care. They do many things together, like travelling, visiting concerts, camping, and gardening. Her parents are getting older and have hired a support person for Christine to go to concerts or take her on trips. It is Christine's dream to go on a trip to the USA.

Some suggestions for tourism service providers to support Christine:

- Before a visit, to make the visit predictable, Christine looks for **information about the attraction** with a family member. She likes to know the destination and what she can see and do there in advance. She wants to know what the place looks like in terms of layout, images of spaces, etc.
- During the visit, she might decide to go without a wheelchair, but after some time, she feels pain and refuses to walk or communicate with others. It is helpful if there is **a 'meltdown' corner where she can relax** physically and mentally. There have been occasions when Christine refused to stay at destinations and immediately returned home. It would be nice if, in such cases, her ticket was refunded.
- **Take time to socialise.** Christine needs time to feel at ease with unknown people in unknown places. Therefore, give her time to get familiar with the service.
- Since walking and standing still are physically challenging for Christine, she prefers **smooth surfaces** without steps and high thresholds. When she uses a wheelchair, **wider doors or ramps** are of added value. When sitting in a wheelchair, it is a surplus when information boards or various devices are placed at an appropriate height.
- Christine loves taking pictures. After her visits, she would watch the images over and over again. Her family has created **different activity books** so she can save photos, tickets, or personal drawings from the visits. Tourism service providers could create a photo booth or special photo areas and give such photos as souvenirs.

These visitor profiles highlight the diversity of people (with mental impairment) and provide tourism service providers with concrete ideas to make the service as inclusive as possible. Overall, we tried to demonstrate that:

- **Every person is unique**, therefore the following can be recommended:
 - Provide inclusive services accessible to people with different needs and wishes.
 - Address each person in the visitor group, for example, the person with mental impairment, and the support person.
- **Every situation is unique.**
 - Some obstacles, for example, when a tourist attraction has architectural restrictions, might be hard to overcome. Think out of the box about how to compensate for those without people feeling forsaken.

An overview of possible adaptations is provided in Chapter 3. As a tourism service provider, you could

- make sure you start "on the same page" so people **feel safe**,
- provide multiple communication options, so people can **pick what suits** them,
- help to communicate, if requested, so that people **feel acknowledged**,
- acknowledge the frustration, so that people **feel respected**,
- allow extra time to reply or decide, so that people **feel appreciated**.

It can be helpful to consult with the visitor's support person before the visit, upon arrival or after the visit, e.g. provide accurate information in advance so that the visit is predictable.

Chapter 2

Designing the visitor experience

2.1. Service design and commonly used service design tools

It has been said that you know when you are experiencing good service, so judgement, whether a service is good or bad, comes from the service user – from the visitor. In this chapter, you will learn a little about service design concepts and see how to create services that take the visitors' needs into account at each step of their journey. Before discussing visitors' experiences, let us clarify the main concepts.

A service is something that one organisation or a person can provide to another. According to the American strategic marketing expert Philip Kotler it is "any activity or benefit that one party can give to another, that is essentially intangible and does not result in the ownership of anything". Traditionally one party (service provider) created something they thought the other party (visitor) wanted without knowing if the service satisfied visitors' needs. Design has previously been considered to be primarily used in the context of fashion, products, interior art and making things beautiful. Nowadays, the understanding of design goes way beyond hats, dresses, shoes, chairs, houses, and shops. Design solves problems. Lately, successful organisations/companies (like Apple, Google, and Netflix) have started using **service design** to become even better at what they are already doing well.

Service design is a methodology that follows certain steps (four main steps are shown in Figure 2.1) and uses different **tools** at each step to help solve problems and develop services based on people's actual needs. User-centredness and collaboration with different parties (customers/clients, employees in different positions, partners, experts) are the key principles of service design.

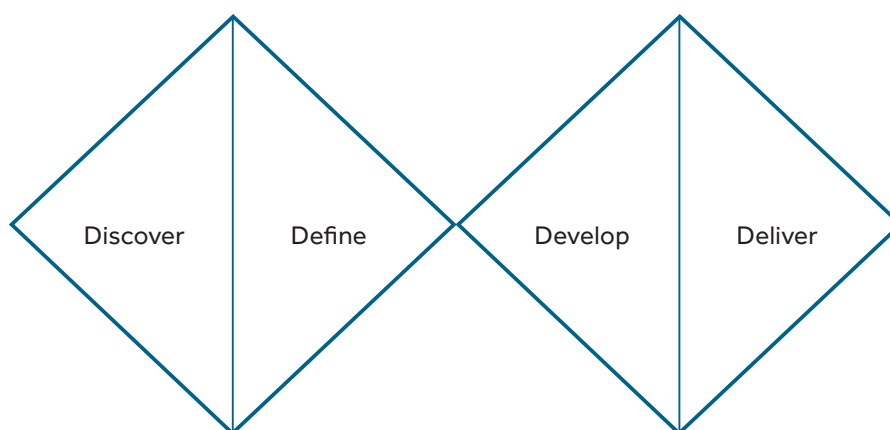


Figure 2.1. Double Diamond model (Design Council, 2019)

Let us look at an example. A museum has planned a renovation, and the staff wish to consider all the potential interest groups in their new exhibition. In the **Discover phase** of the service design process they might search for information, read some reports, talk to experts, and look at how other museums have created their recent exhibitions. They might look through the feedback of their current visitors to see what has earned favourable evaluation and what could be improved.

In case an organisation wishes to analyse their current tourist experiences and improve them, a structured approach to parallel managing service design and the design of the service environment (including, spaces, objects, and communication tools) is advisable. A service design agency as well as a person in the tourism organisation knowledgeable in the field of service design can lead the process and make sure that every phase is completed, and every step is taken in the process.

To meet the key principle, 'user-centredness', one must reassure that tangible spaces, objects, and intangible user experiences are desired by the visitor and are user-friendly. To this end, the **service provider** (management and staff) but also the **end-users and organisation stakeholders** should be closely **involved throughout the design process**. In their role as professionals in the field or user experts, they provide designers with information. After all, a designer is not a museum staff member, nor a tourist guide. As users of future services, the service provider and end-user give feedback in the Discover phase: what goes well and should be kept, what goes wrong and should be adapted or complemented.

Besides the designers/designer-researchers, the tourism organisation staff can take a role in investigating the clients' needs. During the Discover phase, they can collect information through surveys. The designer-researchers can use methods, such as (*group interviews*, and *observations*, of the current users' journey(s) and behaviour within the existing spatial context. The most important question to ask during the interview is "WHY?".

In order to understand how visitors feel when they visit the organisation, it is a good idea to research it every once in a while. **Customer journeys** tell the story of visitors' experiences through different contact points (also called **touchpoints**) when a visitor interacts with an enterprise or service organisation. There are as many different journeys as there are visitors, but combining similar journeys will help companies/organisations to see what is well and what is not.

Traditionally, there are three stages on each person's journey: before the service experience, during the service experience and after the service experience. Customer journey can also be circular (see Figure 2.2) since it is important that visitors recommend your offer to their friends and family or praise you in social media.

So, a customer journey map is a research-based tool that helps to understand how a visitor relates to the services, business or brand over time. Once we analyse the customer journey, the researcher will list the experiences that can be approved. The following storyboard (see Figure 2.3) shows how to look at a user journey during a museum visit.

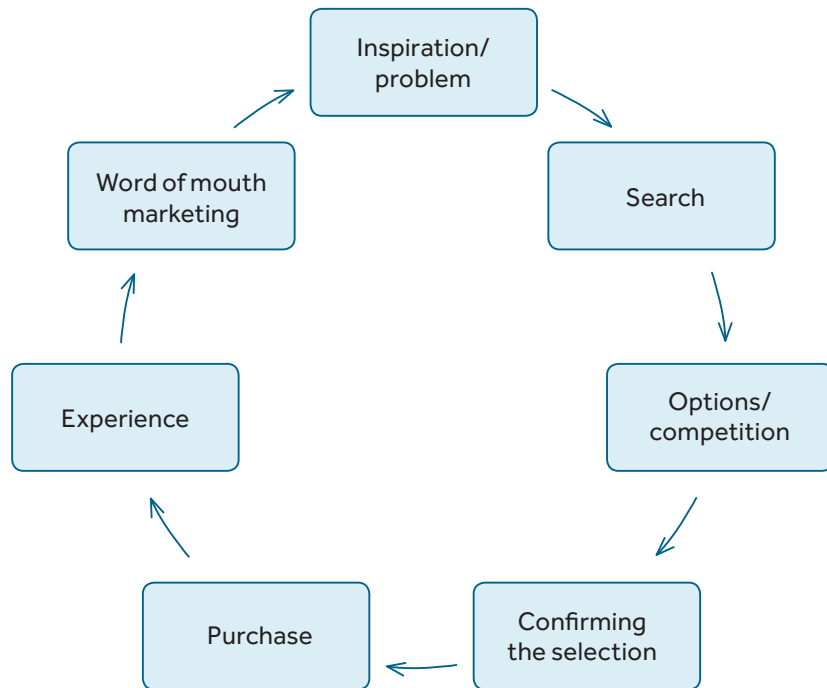


Figure 2.2.
Circular model
of customer journey

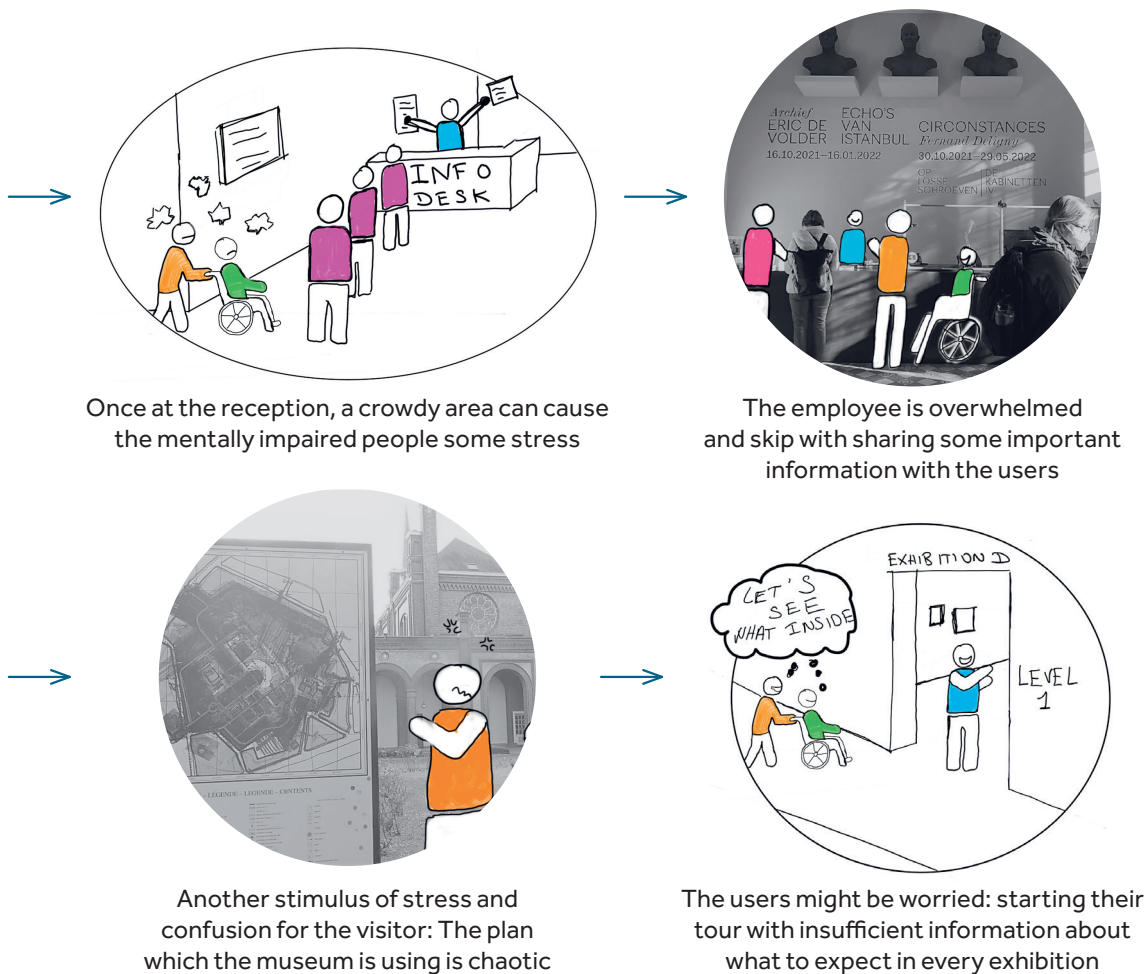


Figure 2.3. Part of the current user journey in the Dr Guislain Museum in Belgium created during the design process. (Study by: Tafara Chibebe, Nicolas Saliba, Jeroen Schoonheim)

The journey maps can visualise any part of an existing experience of a client (Figure 2.3), also indicating the emotional curve of a user while using the existing services or presenting the future – so-called idealistic versions of the journey maps (see an example in Figure 2.4). The future customer journey map can also be seen as the quality measure of how each of the organisation’s visitors should be treated during the process. The experience improvements in Figure 2.4 are based on the design project concentrating on getting around better and clearer communication.

SSD Current User Journey_ Worksheet

Steps in the experience Note the different stages in your visits to service place. Before: website, folder, on your way there, social media... During: arrival on site, entering, participating, toilet visit, drinking... After: Souvenir, email...	Date: 23.11.2021 Participant's name: Jody, Davy, Davy, Stef Age: 21–35 year Occupation: Living in Huis Zingem – open institution										
	before entering the room welcoming and over-seeing the room		visiting the room looking at the cabinet/ tabel with objects walking trough the room looking at blue giants and dolls seeing and touching suitcases walking to chairs sitting on chairs explanation about objects								
Unsatisfied or Satisfied Go through the journey with a line that connects the touch points started above and rank them from positive to negative experience. Connect the dots and you will reveal the emotional curve of the user's experience.	time:		time: 30 min								
	+	+	+	+	+	+	+	+	+	+	+
+	+	+	+	+	+	+	+	+	+	+	+
+	+	+	+	+	+	+	+	+	+	+	+
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-

Figure 2.4. Part of a worksheet for user journey with the emotional curve of the visitor during the visit. (Study by: Tafara Chibebe, Nicolas Saliba, Jeroen Schoonheim)

A method which is also often applied is a *service safari*. It is a qualitative research method that intends to experience the service first-hand on site and gain a deeper understanding of the current service system. It is possible to do a service safari, for example, with museum staff, designers, end users and stakeholders to immerse in the existing situation together. One can take pictures of each step in the journey to visualise the user’s interaction and the service touchpoints and use them in discussions afterwards.

The service design Define phase concentrates on understanding the actual problem. During the Discover phase, such information will be collected, so they need to pick the correct issues they will start working on in the define phase. During the Define phase, staff, users, and stakeholders can confirm or establish with the designers the priorities

for better future user experiences. It is essential to go more in-depth with different visitor groups – learn what is vital for them and how they experience and understand things. In a museum, you will typically have school groups, people with a deep interest in a topic, people who are accompanying people with a deep interest in a topic, and random visitors. Can you think of more visitor types? The service designer will now use all the information gathered in the discovery phase and create a **persona** (also called the profile of a visitor or visitor profile). A persona is not an actual person but a combination of different characteristics of a typical visitor. To make a persona more relatable, designers give him or her a name, age and background story and also find a picture of what they might look like. There might be (and usually are) more than one persona based on research data. For example, in sub-chapter 1.3 were presented different visitor profiles of people with mental impairment. In Figure 2.5 you will see a persona created based on a group of people studied during the MindTour project.

EXAMPLE OF VISITOR PROFILE


	Name	Margo
	Age	18+
	Role/Occupation	works in a kitchen
	Marital status	single
	Place of residence	Pärnu, Estonia
<p>Description /Short life story Has a mild intellectual disability that was diagnosed when he was 2. He went to local kinder-garden and got basic education in a special school. He is surrounded by people who love and support him.</p>		
<p>Quote or a life moto Music and puzzles are the best!</p>		
<p>What makes her/him happy Putting together puzzles, listening to music</p>		<p>What makes her/him sad When people say mean things</p>
<p>Hobbies Going to the local museum, making music, playing with animals</p>		<p>Fears Hights, darkness, loneliness</p>
<p>Hopes and dreams Adults would talk to him as an adult (using simple language)</p>		<p>Challenges Reading, social skills, adaption</p>
<p>Opportunities To give him tasks that he is able to do. Support his interest in music.</p>		<p>What makes her/him angry When people treat him like a baby</p>

Figure 2.5. An example of a persona visiting Pärnu Museum

During the **service design Develop phase**, different stakeholders should be involved. They can be *co-creators* of design ideas. During a *workshop*, they can *brainstorm* about future solutions: “What if we would replace... combine... add...?”. Staff and users can give feedback during pitches of service design proposals. By organising the design process in this way, the organisation’s team will get a sense of **co-ownership of the future service system**.

In the Develop phase of the service design process, designers concentrate on specific personas’ problems and think of ways to solve them. Designers usually have a few different ideas to try out from the development stage. **(Service) prototypes** will be created and tested. By *testing mock-ups and prototypes* with users, the designer and service providers check whether the design responds to the visitor’s actual needs and dreams. Moreover, they **align with the client’s requirements and expectations**. The pre-service, service and after-service for the visitor should be supported and ‘evidenced’ by a logical space or environment with relevant objects and communication tools. Ideally, the museum will try out those ideas on a small scale, and when a trend for the ideas that are not working is shown, they need to be removed, and ideas that do work have to be taken forward. Prototyping avoids spending much money on developing something that will not suit the visitors’ needs. It is often done using cheap materials (paper, cardboard, scissors, post-it notes) and easy solutions (storytelling, scenarios, etc.).

The **Deliver phase** in service design is the last. After the Deliver phase is finished, everybody in the service organisation has to know the steps the visitor takes and know their role in the user’s process so that everything will run smoothly for the visitors. Often the “How it should be” customer journey (future user journey) will be introduced. Being in a Deliver phase does not mean that the process is over. In case new issues occur, the designers may go back to the previous phases, or the process starts from the beginning.

The consequent involvement of stakeholders is essential in gaining up-to-date, accurate insight about the specific context one is designed for. The extent to which staff, users and stakeholders are involved during the process depends on their skills, availability, time and the organisation’s budget. At times, an end-user with disabilities might only be involved with the help of their caregiver, who can assist during a visit in interpreting feedback or moderating a conversation. Improving or designing services is complex. Sometimes one has to deal with **wicked problems**. Not all aspects of a service system can be developed with the help of the end-user. For example, a service system should predict when there will be an interaction among the users and between the visitors and the staff of the organisation or business. It should also be clear what should be paid for and how the flow of goods is organised.

Service design tools can support the design process and the service design methods throughout the four design phases. We may point out customer journey tools, service system maps, stakeholder maps, *personas*, priority charts, motivation matrixes, etc. There are many service design toolkits on the market. A simple Google search will give plenty of results. Ideally, one uses tools that simultaneously address services and service environments. For example, a spatial service system map, used during the Develop and Delivery phase, maps the services and touchpoints simultaneously on a building plan. It enables the designers to compose the service system as a well-orchestrated entity to respond to the often wicked problems.

Since services are intangible, it is often challenging to communicate and visualise them. The services are evidenced by the touchpoints; for example, good visible signage in a hotel makes getting around and navigating the space easier. Therefore, designers should communicate with the service provider and users via **user-friendly visualisation tools**, research presentations and reports, comprehensible storyboards, user journeys, personas and giga-maps (maps of service environments comprising all qualitative and unsatisfactory, tangible and intangible elements of a service environment), stakeholder maps, etc. The stakeholders can use visually clear reports and posters in their turn to communicate with users, for fundraising and in the implementation of projects.

Often the touchpoints which support the service system and make it evident belong to a different discipline: museum spaces are designed by spatial designers, displays and furniture belong to the field of an interior designer, packaging and folders are designed by packaging designers or graphic designers, website design belongs to the field of user experience designers. A space & service designer can keep an overview of all contributors to the final result. Multidisciplinary teamwork is ideal to realise holistic spatial service systems.

Service design is considered a mindset where visitors' needs are the priority, and the development process follows the information received from them. It is also called design thinking, experience design, holistic user experience (UX), user-centred design, human-centred design, new marketing and universal design.

2.2. Universal design

"It is an amazing accomplishment how you can offer a value-adding experience to everybody, if you take into account different means of experiencing the world", said Daniel Kotsjuba in his TedxTalk about inclusive design. According to the National Disability Authority, **universal design** is the design and composition of an environment to be accessed, understood and used to the greatest extent possible by all people regardless of age, size, ability or disability. Meeting the needs of people with different needs is often a special requirement for the benefit of only a minority of the population (for example, a special ramp for a wheelchair user vs a gentle rise).



Figure 2.6. Specially designed ramp

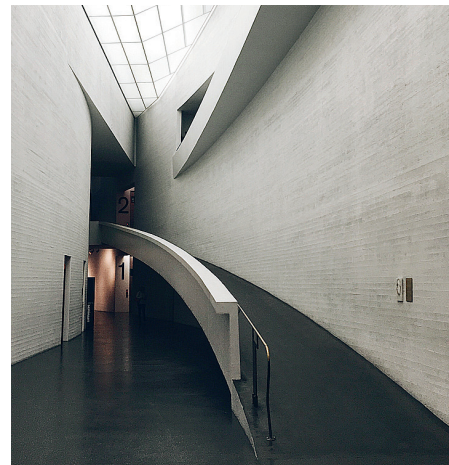


Figure 2.7. Museum using universal design solutions

The universal design criteria are a fundamental condition of good design. Everyone benefits if an environment is accessible, usable, convenient, and a pleasure to use. By considering the diverse needs and abilities throughout the design process, universal design creates products, services and environments that meet peoples' needs. So, the physical environment and general atmosphere are vital in a fulfilling and holistic experience. Therefore, designing services and designing service spaces go hand in hand. Both the tangible environment (structure of the building, orientation, architecture, light, greenery, functions, etc.) and the intangible environment (history of the built environment, building, cultures and habits, circulation of people, laws and rules, and most certainly the existing services) need to be taken into consideration during the entire design process. You can read more about universal design marketing and promotion strategy in sub-chapter 4.1.2.1.

Chapter 3

Investigating visitor needs, developing and prototyping services: Examples of Museum Dr Guislain and Pärnu Museum

3.1. Needs of the visitors

In the previous chapter, we talked about the service design process and explained what service design tools one can use. This chapter explains how inclusive services for Dr Guislain Museum in Belgium were designed and prototyped.

The general research question was: **“Which services and service touchpoints can make Dr Guislain Museum inclusive for people with mental impairment?”**

The first thing is to analyse and understand the needs and wishes of the museum and its visitors:

- to investigate the specific needs and behaviour of visitors with mental impairment and their families before, during and after they visit the museum;
- to improve the current services for people with disabilities in general, strengthen them or make them more explicit to the visitors and broader audience;
- to create new service prototype(s) for people with disabilities;
- to adjust the service environment (spaces, objects, communication) in such a way that it facilitates the services and proves that the service exists (tangible proof);
- to increase knowledge and awareness about the specific needs of the people with mental impairment visiting public spaces;
- to inform, inspire and activate the broader public; to impact individuals and families, organisations, governments, schools and businesses by stimulating a different mindset;
- to leave a **mark or trace** of the service and the **vision**, also when there are no people with mental impairment present;
- to create new services and experiences which **bring people together** and stimulate them to act together;
- to offer **appealing interactions** between persons and the objects or tools meant for exploration;
- to offer information that is **self-explanatory** and comprehensible without consulting employees or volunteers on site;
- to develop a spatial and service system with an **attractive, viable tourism business plan**.

The main target groups in the Dr Guislain Museum are:

- organisations which offer tourism services, with Dr Guislain Museum as the main stakeholder,
- persons with mental impairment and their proxies (see the created personas in Figures 3.1 and 3.2),
- organisations for people with mental impairment,
- children, families with children, and the elderly are an indirect target group. (*People with mental impairment have specific needs for the content and type of information, for channels and formats which help them to perceive the new information, and those needs are comparable in one or another way with children and the elderly, as well*).

3.2. Getting to know the target groups by observing and interacting with them in the museum

To understand the needs of all stakeholders, student design teams and lecturers immersed themselves in the museum environment during a 3-day workshop. The workshop included observations of visitor groups with people with mental and physical disabilities, service safaris of students and lecturers experiencing the services and museum environment themselves, short workshops with the visitors to understand their feelings towards their experience and interviews with staff and caregivers. Previously the students had conducted a literature review. These intensive workshop days lead to an enormous amount of new insights.

By interviewing the museum staff, the main stakeholders, and the visitors of the museum, they came to a general view of how the museum currently works and what its goals are. The design team uses a stakeholders' map. The website and communication of the museum were studied to get an idea of how communication with the potential visitors has been proceeded.

Making a museum accessible for people with mental impairment required designers to get to know all the different kinds of people involved while experiencing the museum. Four different groups of people with mental impairment were invited during the 3-day workshop. The groups were different in age as well as in their ability to handle their surroundings. The museum staff contacted the groups via the caregiver's organisations. The museum prepared a tailor-made guided tour. In four museum rooms, a guide led the visit by saying something about the exhibition, its goal and the main art pieces. After half an hour of explanation, the group could participate in an activity related to the exhibition created especially for people with mental impairments. For example, in the exhibition about mirrors, the people could make a drawing on a mirror. The museum guides received in advance more information about the profiles of the visitors with mental and often also physical impairments.

Meanwhile, one researcher observed, and one accompanied the visitors. One person took notes of the observation on the 'observation checklist'. For the observation, researchers had made a list of potential behaviours that the group was likely to adopt, and a checklist to help the design team take short notes during the visit (see the design teams working with the observation checklist in Figure 3.1 and worksheet in Appendix 3).

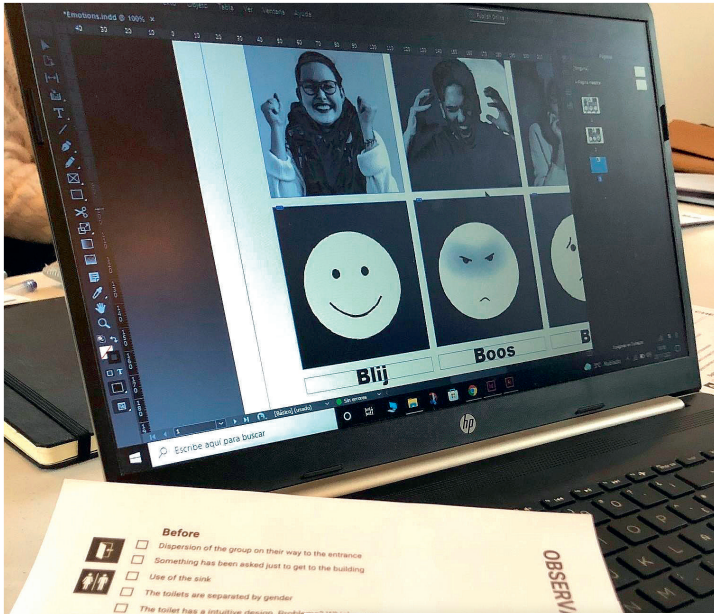








Figure 3.1. Observation checklist created by Space & Service Design students of Thomas More, here in use during the workshops.

OBSERVATION CHECKLIST




Before

-  Dispersion of the group on their way to the entrance
- Something has been asked just to get to the building
- Use of the sink
-  The toilets are separated by gender
- The toilet has an intuitive design. Problems? Which ones:
-  Widespread nervousness while waiting in line
- They have sat in the waiting time (If this space was provided)
- Someone of the group interact with a worker
- They have taken some map of the museum
- They use the map for other purposes. Specify which:
-  They leave their belongings at the locker
- The group takes responsibility for the key (code) of the locker
- They store mobile devices at the locker
-  All was right with the delivery of documentation
- The same information is provided to the coach as well as to the rest of the group
- The group is identified with some sort of sticker

During

-  No one gets lost throughout the exhibition
- No one breaks any museum rule. Specify which one:
- The stairs are used without difficulty
- The white room is used. By who? when? for how long?
- Interactive points are used successfully. Why?
- They use the map orient themselves
- They take time to rest. How long?
- There was someone who wanted to go to the bathroom during the journey
- They have free time during the journey. For what do they use it?

After

-  They bought something in the museum shop. What?
- They spent time in the museum shop. How long?
-  They have gone to the cafeteria. What did they do?
-  Everyone has their belongings before they leave
- Everyone knew where the exit was

Other student-researchers observed the different small groups of visitors with mental impairments. Let us meet one group: five boys, in their mid-twenties, living together in one house. By observing the group (see Figures 3.2), it was learnt that every group member complements one another. They were having fun during the visit. Three of them participated actively in the activities proposed by the guide, especially in drawing on the mirrors.

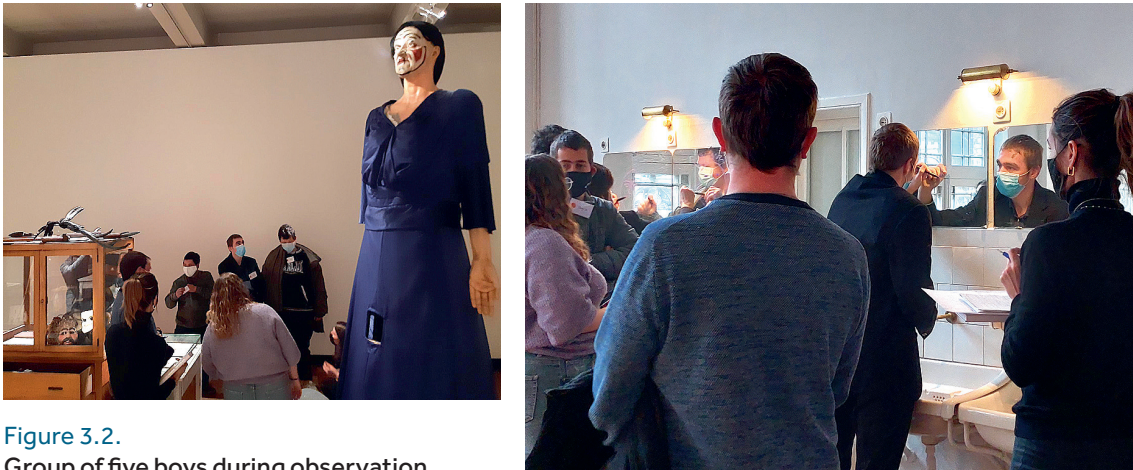


Figure 3.2. Group of five boys during observation

The boys liked to interact with the exhibition, primarily through touching. Using the worksheet of the current user journey to register every experience of the group, information was received about the visitors' experiences on their 'user journey'. At the end of a one-hour visit to the room, student-researchers asked the visitors about their experience in the museum. After orally explaining the emoticons by showing them pictures, the student-researchers asked the visitors to choose emoticons according to their feelings (see Figure 3.3). The visitors could point out (using a clothes peg) the emotions they felt during the visit and talk about them. Sometimes the caregivers assisted in the conversation.



Figure 3.3. Emoticons to express the emotions of the museum visit: happy, angry, scared, surprised, sad, disgusted. (Tool created by Postgraduate students in Space & Service Design of Thomas More)

After choosing the emoticons in Figure 3.3. members of the group indicated they were very 'happy' and mentioned that the interactive method, and the play factor, made them happy. One of them was 'surprised'. Asking about that emotion, he could tell us about a lot of details, like the giant dolls, the movies playing, and the instruments he discovered; he explained that he did not know a museum with that big of a doll. During the visit, he was silent and did not participate in the activities.

Drawing on the mirrors was the most exciting part for the vast majority of them, except for one person who seemed more distant even though he did not show symptoms of worry or nervousness. In the first part of the exhibition, they paid more attention to the people who observed them, rather than the exhibition. Looking at a scale model, they were distracted and did not pay attention to the explanation. Seeing the pictures in one of the rooms they interacted a lot with the tour guide and asked a lot of questions. Moving from one room to another they took pictures and joked a lot. Assessing their emotions, they had a very positive response and said they wanted to come back in the future.



Figure 3.4. Emotions of a museum visit

In another group, we met an older deaf man in a wheelchair who was an artist. Discussing art was exciting, but then he was not so amused by the accessibility of the exhibition. Lots of art pieces were exhibited too high. A woman aged 60 was so tired climbing the stairs that she was unable to enjoy any moment of her visit; after the visit, we showed her the elevator.

In the previous chapter a part of our current user journey worksheet was shown. Here (Figure 3.5) is an overview of the usage of the map of the whole visitor experience in this museum. The curve explains the user's emotions during the visit in all places and their experiences. We will add some pictures and notes on the observations. The use of the spaces, the activities and actions are being mapped and related to the services (tangible and intangible) and the emotions are being related to the actions, activities and places.

SSD Current User Journey_ Worksheet

<p>Steps in the experience Note the different stages in your visits to service place. Before: website, folder, on your way there, social media... During: arrival on site, entering, participating, toilet visit, drinking... After: Souvenir, email...</p>	<p>Date 23.11.2021</p> <p>Participant's name Jody, Davy, Davy, Stef</p> <p>Age 21-35 year</p> <p>Occupation Living in Huis Zingem - open institution</p> <p>Goal (purpose of visit to space or use of service) Have a nice museum visit</p>		
	<p>before</p> <p>entering the room</p> <p>welcoming and over-seeing the room</p> <p>time: _____</p>	<p>visiting the room</p> <p>during</p> <p>looking at the cabinet/ tabel with objects</p> <p>walking trough the room</p> <p>looking at blue giants and dolls</p> <p>seeing and touching suitcases</p> <p>walking to chairs</p> <p>sitting on chairs</p> <p>explanation about objects</p> <p>touching objects</p> <p>time: 30 min</p>	<p>interactive workshop</p> <p>after</p> <p>survey about the experience</p> <p>leaving the room</p> <p>time: _____</p>
	<p>Unsatisfied or Satisfied</p> <p>Go through the journey with a line that connects the touch points started above and rank them from positive to negative experience. Connect the dots and you will reveal the emotional curve of the user's experience.</p>		
<p>Tangible Example: website, folder, social media, way-finding, parking lot, entrance hall, reception, toilets...</p> <p>Intangible Example: the Services of this organisation the user's experience.</p> <p>Why: Explain shortly why you were satisfied or unsatisfied about the tangible or intangible elements of the Service Space in the different phases; before, during and after.</p>	<p>door - was open</p> <p>room with objects</p> <p>cabinet/tabel with marks, theatre props</p> <p>small passage, wooden door</p> <p>blue giants and dolls</p> <p>suitcases with trophy</p> <p>chairs</p> <p>suitcase with objects: fencing helmet, fake nose</p> <p>touching objects</p>		

	welcoming ontroduction/explanation	guiding a tour	leading people to chairs	possibility to sit	experience of interactive workshop	survey on experience
ACTIVITIES						
ACTIONS						
EMOTIONS						
						1 SURPRISED 3 HAPPY

Figure 3.5. Current user journey of one group mapping the users' emotions, the observations in pictures, an overview of the actions and activities with the emotions of the visitor(s) (Tool: Van Geetsom, N. & Wilkinson, A. (2022). Space & Service Design Toolkit. Thomas More. Mechelen).

Based on several group observations the main findings were:

- insufficient signage,
- difficulties with navigating the space,
- lack of engagement and interaction,
- high stress level,
- lack of structure and context,
- texts were not easy to read,
- the purpose of the museum was not understood,
- fear of sounds, darkness, and some objects,
- lack of warnings about sounds and changing light,
- overstimulation of senses,
- lack of fun factor.

After mapping the findings, prioritising needed to be done. Together with the museum staff, the design team discussed the priorities that needed to be handled. In the to-do list, the priority order was introduced: (1) to keep, (2) to improve, (3) to create. See prioritising worksheets in Figures 3.6 and 3.7.

SSD Priority Charts_ Worksheet (Listing)

To Keep	To Improve	To Create	Shortlist Services and Experiences	To Keep	To Improve	To Create	OBJECTS
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	providing info trough website	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	benches to rest
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	welcoming at the reception	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	accessible furniture for wheelchairs (height)
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	signalization to the main entrance + the whole building	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	small ramps for spaces with a small stair
<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	museum shop	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	COMMUNICATIONS
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	providing lockers and wheelchairs	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	audio and screens need subtitles
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	offering the service of visitors assistance	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	providing info trough website
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	providing an elevator	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	no clarity about the possibility to touch the scale models
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	free exhibition folders to use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	SPACES
<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	offering a sensory bag	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Time-out room
<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Doing 'after care' > asking how they liked it	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	room with a lot of colours and stimuli
<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Offering workshops/guided tours for people with a disability	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	room with very little colours and stimuli

Figure 3.6. Prioritising list (Van Geetsom, N. & Wilkinson, A. (2021). Space & Service Design Toolkit. Thomas More. Mechelen)

SSD Priority Charts_ Worksheet (Prioritizing)

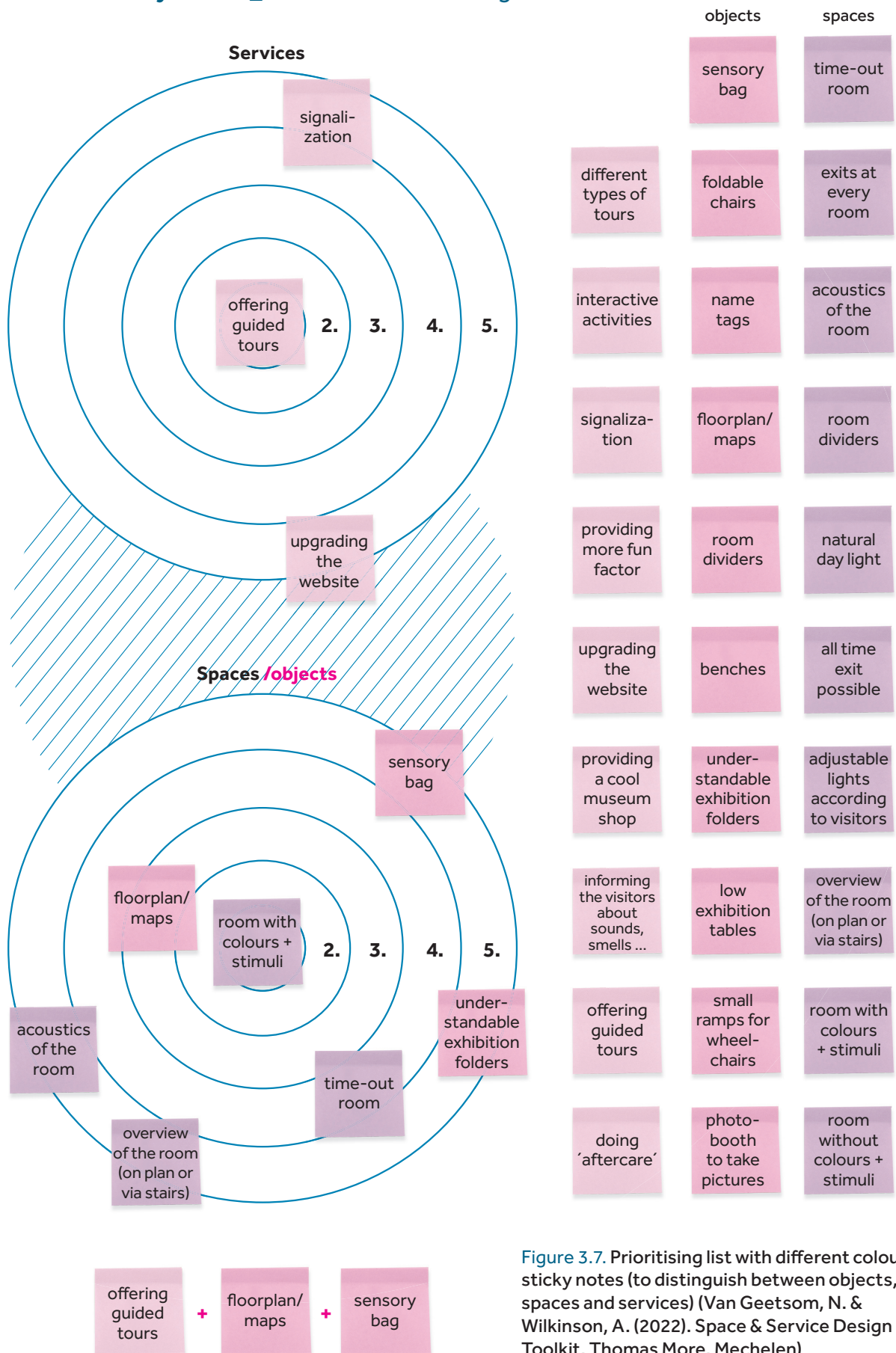


Figure 3.7. Prioritising list with different colour sticky notes (to distinguish between objects, spaces and services) (Van Geetsom, N. & Wilkinson, A. (2022). Space & Service Design Toolkit. Thomas More. Mechelen)

Based on research findings ensuing from visiting the museum and observing, different groups' personas were created. Especially during the museum visit, the researchers realised that it was not only about people with mental impairment. Their caregivers/parents/companions are frequently the persons who decide whether or not to come to the museum. They are the persons who prepare the visit and try to assess whether the museum will be accessible enough for their friends/children/service users.

In Figure 3.8 personas are created in a museum environment based on their function, focus, expectations and possible emotions.

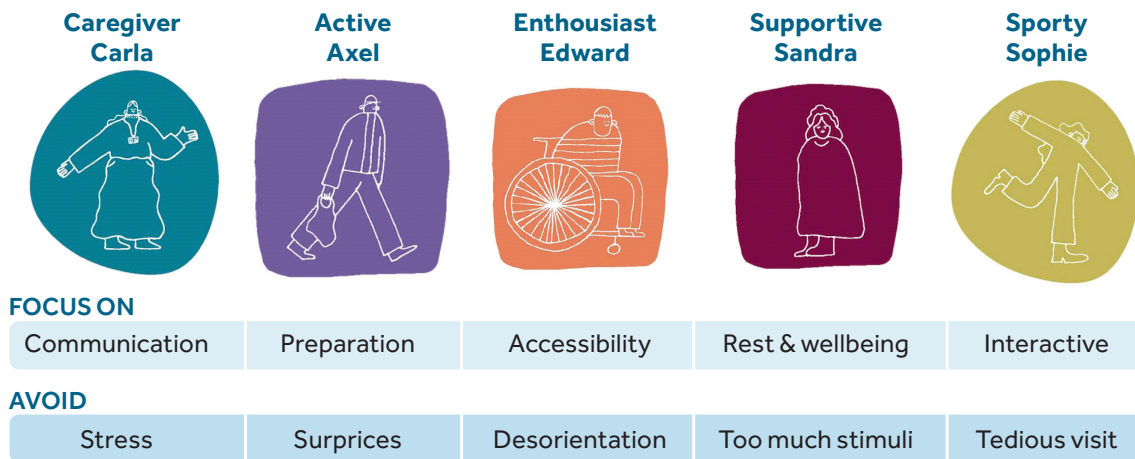


Figure 3.8. Connecting the Personas to their function and emotions (Study by: Julie Amy, Anthony Chalfoun, Britt Pellens)

VISITOR PERSONAS

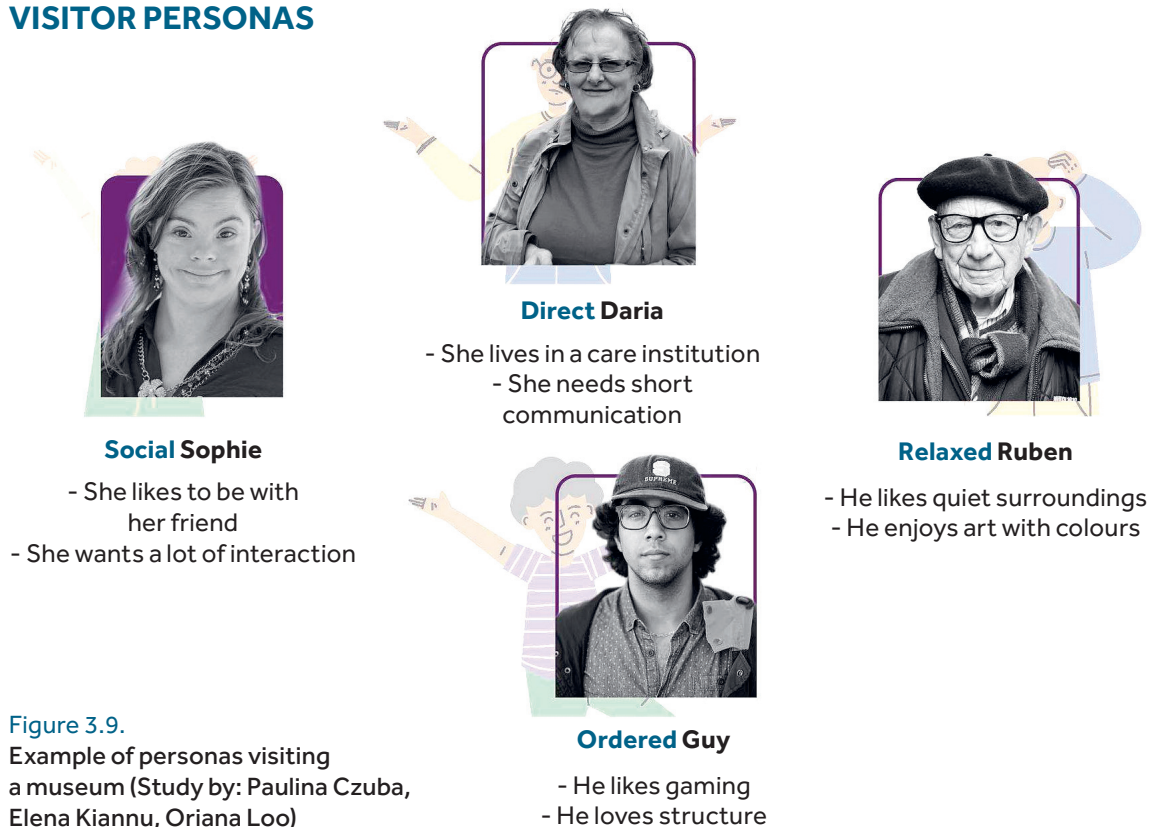


Figure 3.9. Example of personas visiting a museum (Study by: Paulina Czuba, Elena Kiannu, Oriana Loo)

SSD (Current and) Future Personas_ Worksheet



Name(s)
SANDRA

Age(s)
Around 50–60 years old

Occupation
Lives in a carehouse

.....

Intrests
Knitting

.....

.....

Quote
add a quote which could typify your persona or states their vision

STAKEHOLDER TYPE (e.g. family, resident, administrative staff, shop owner, medical staff, visitor, ...)

Objectives for using the...

+ Services

Understandable/readable texts

Sandra likes to get some explanation while she is reading texts

.....

Create an atmosphere of trust

Working with pictorgams to make text clear

Concrete, short and direct communication

.....

.....

+ Spaces and Places

Enough and good lighting

Open spaces to walk around freely

Options to get close to the object in order to see it better

.....

.....

.....

Possible thresholds for the...

- Services

Small texts

Sandra needs to concentrate when she is reading therefore the room needs to be calm and not too crowded

.....

.....

.....

.....

- Spaces and Places

Avoid busy patterns

Absence of structure and predictability

Poor lighting and dark small rooms

Lighting that shines too bright in Sandra's eyes

.....

.....

.....

Figure 3.10. Part of a worksheet, example of a persona (Van Geetsom, N. & Wilkinson, A. (2022). *Space & Service Design Toolkit*. Thomas More. Mechelen) based on research conducted at the Belgian museum of Dr Guislain (Study by: Paulina Czuba, Elena Kiannu, Oriana Loo).

According to the previous recommendations about creating personas and bringing together the different experiences, needs and worries of the visitor, here on Figure 3.11 is one more example on how to combine user activities with a museum offer. The diagram explains how this persona experiences the museum over time. It indicates which touchpoints support the different stages in the service experience and how much time the action takes.

CUSTOMER JOURNEY

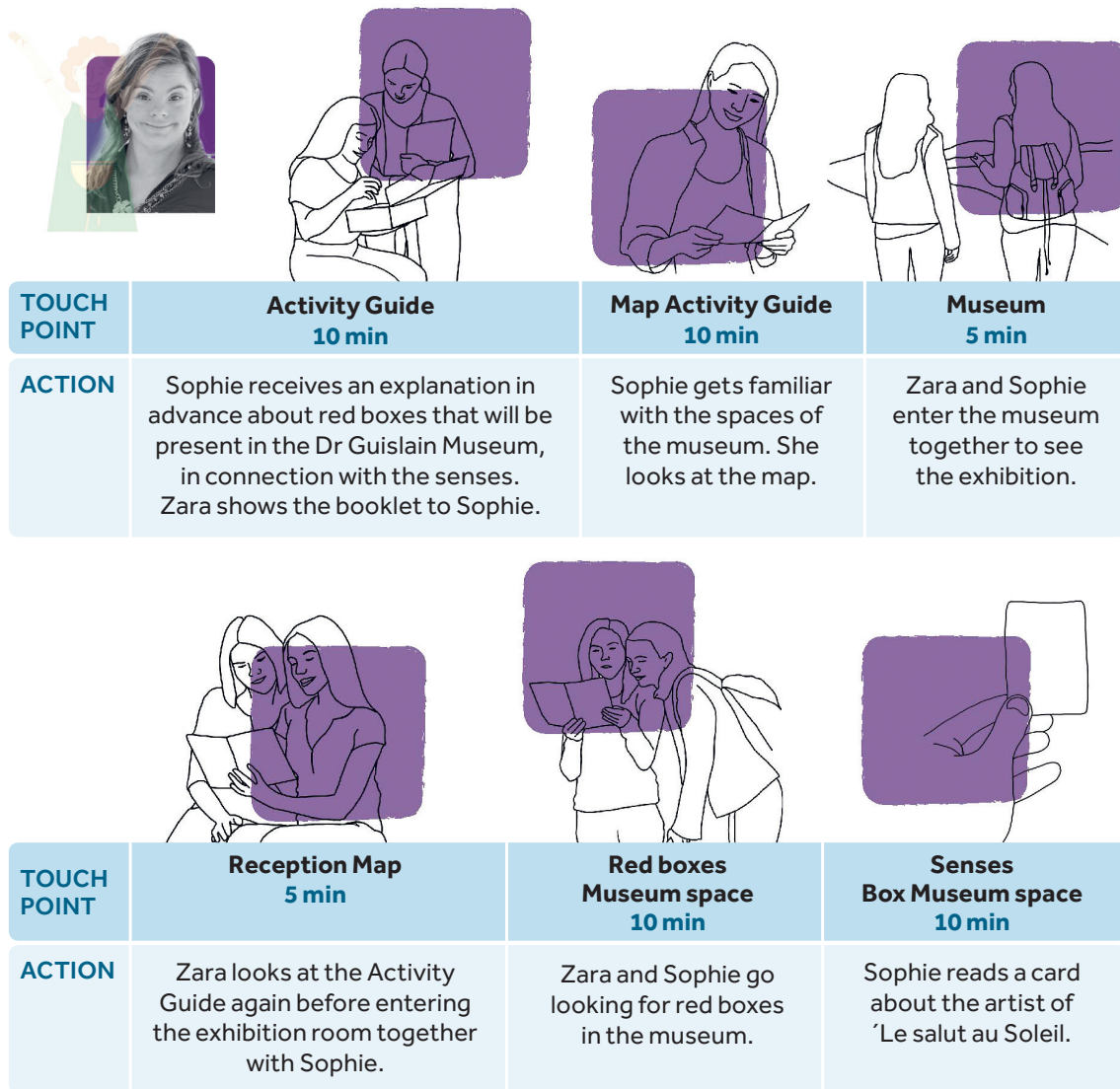


Figure 3.11. Example of personas and their specific focus in the museum environment; here we designed 'senses boxes'. (Study by: Paulina Czuba, Elena Kiannu, Oriana Loo)

It is really important to map the service touchpoints. By observing and interviewing users, student-researchers took photos to map how mentally impaired users experience the current services and service touchpoints. The pictures indicate what the points of attention in the museum are and where they are situated in the visitor's journey. What do the visitors miss and where does what go wrong? These will be the touchpoints, places or (parts of the) services that need to be improved in the future. Things that go well, need to be kept. Figure 3.12 shows different touchpoints in visitor experiences, for example at the entrance.

The current user journey can be mapped by analysing the spaces used for the services given. On a map, one can indicate the existing tangible and intangible touchpoints.

TOUCHPOINTS & SERVICES

Service providing spaces

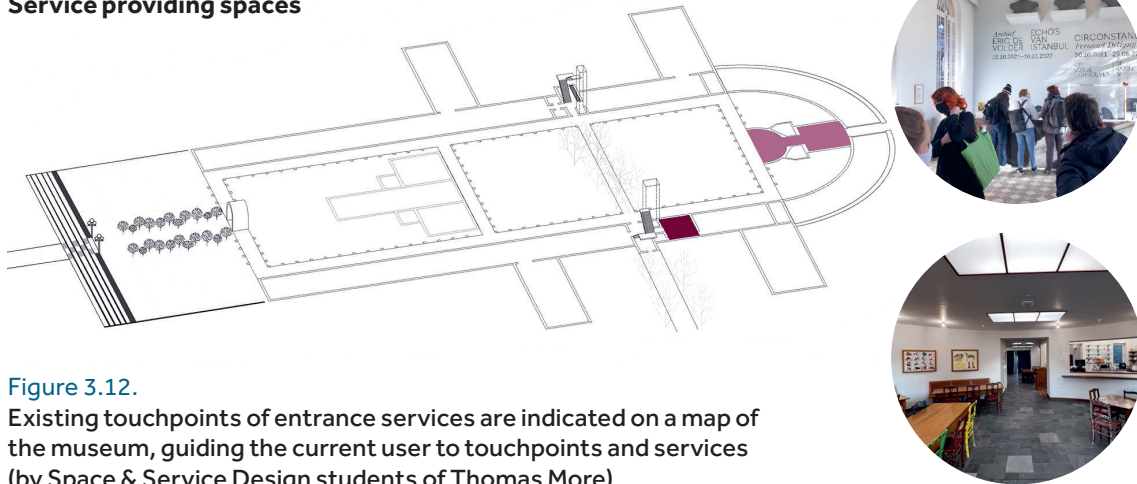


Figure 3.12.

Existing touchpoints of entrance services are indicated on a map of the museum, guiding the current user to touchpoints and services (by Space & Service Design students of Thomas More)

By adding this analysis of the touchpoints together with the real-time experience of the users (the current user journey), the changes in the design of a new user journey were introduced.

3.3. Design challenge and the prototypes

A design challenge worksheet now allows us to define the design goals and requirements. The intended outcomes should provide a relevant solution to the challenges we met during the research at the museum. Which spaces and services can be connected and approved? Which spaces and services are missing?

The first ideas and suggestions for improvement of the services and the prototypes are:

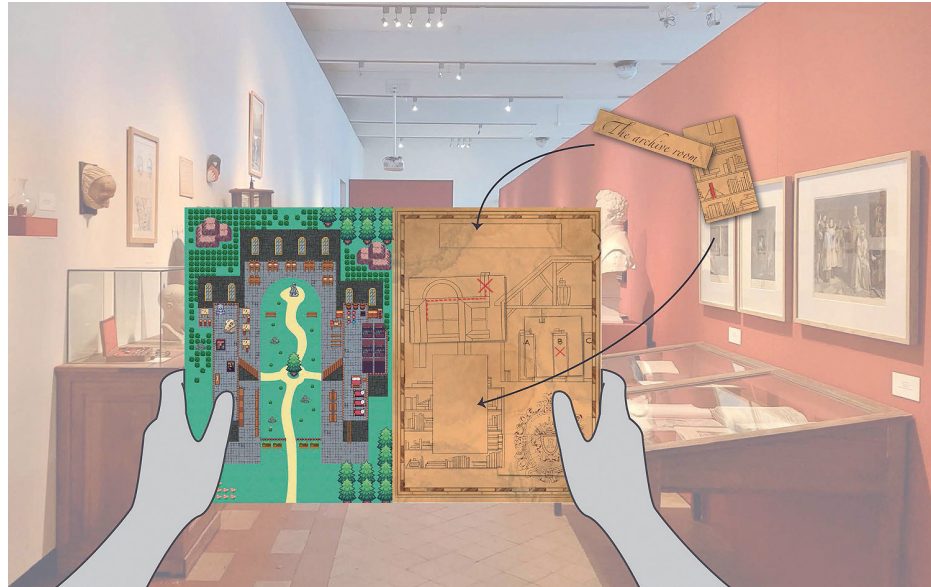
→ An interactive map.

The idea is to design an easily readable plan, removing the unnecessary details, hence keeping only the essential elements that allow people to navigate through the building, and showing the journey that the users should follow. Perhaps the map could be interactive with some blank spots on the map to draw on once you get to a specific location. The map may also contain a question the visitors should answer. That way, we establish a connection between the exposed object and the interactive activity proposed.

Could the map be like a video game map? Once the visitors have completed all tasks on the map, they can get some reward at the exit. It is a challenge, however, not to make the map or the activities childish and have them fulfil everyone's needs.

The above-mentioned tasks and activities can be combined with the guidebook contents: colours can be used to refer to specific works of art and mini plans (see Figure 3.13) with numbers can be presented in the guidebook to refer to specific parts of an artwork.

Figure 3.13. Idea of an interactive map for the Dr Guislain Museum. (Brent Van Camp and Sergi Bosque Ródenas)



→ Signage

Design a signage system and the sign icons to solve the apparent problems of finding the museum entrance and navigating the space inside the museum.

To consider: to be clear and comprehensible to everyone, the icons have to maintain the same style. Signage has to be visible and readable to everyone. The signage needs to be clear for people who come by car, public transport or bike. Perhaps a collaboration between the different services offered in the same space can take place to unify the signage design. You can read more about signage in prototype 2 (see also Figure 3.23).

→ Interactive room

Since the design team saw a major interest in interactive activities in the majority of visitors throughout the day, perhaps it is a good idea to create a room where nothing is conceived as a piece of art, and everything can be perceived through various senses.

Visitors there could experiment with different objects in the room without barriers, they could modify the room interior. Maybe what they draw and how they transform the room can be perceived as a piece of art there. Therefore, the art they would create is going to change over time, thus creating a temporary exhibit. The visitors themselves become artists.

It sounds like a very ambitious idea, but certain things should be thought about, such as how to prevent the destruction of the room interior if everything can be touched or altered. How to guide the visitors on all their possibilities and where to start? Maybe some of them feel overwhelmed by all the possibilities.

After proposing the ideas to the staff of the museum and the caregivers of the groups, the concept was developed further on clear signage and clear preliminary information about the exhibition. Four prototypes were developed together with economic analysis for the museum: a map with signage (handy plan), a sensory box to make the museum visit more interactive in each room, a game with Dr Guislain showing the way through the museum, and a toolkit to prepare the museum visit. The same process took place in all MindTour project countries. For example, at Pärnu Museum in Estonia, student design teams developed

seven different prototypes to improve the visitor experience for mentally impaired visitors (different games, a workbook, guidebook to help caregivers in the museum, teaching material for new employees on how to engage with visitors with different impairments). A card game prototype will be explained in sub-chapter 3.5.3. The development process of one prototype (the toolkit) is shown in more detail in the subchapter 3.5.

3.4. New user journey

To prepare the prototypes, a new user journey is mapped. As designers discovered that the visitor with a mental impairment needs to prepare for the visit, they added a user journey before the visit. Service design demands a holistic approach. The concept of the toolkit to prepare for the museum visit offered opportunities to engage people in the museum, as well as before and after their visit, so pre and after services were included in the design. In the following figures (see Figure 3.14), the consecutive steps in the user's journey are visualised.

USER JOURNEY: BEFORE VISIT

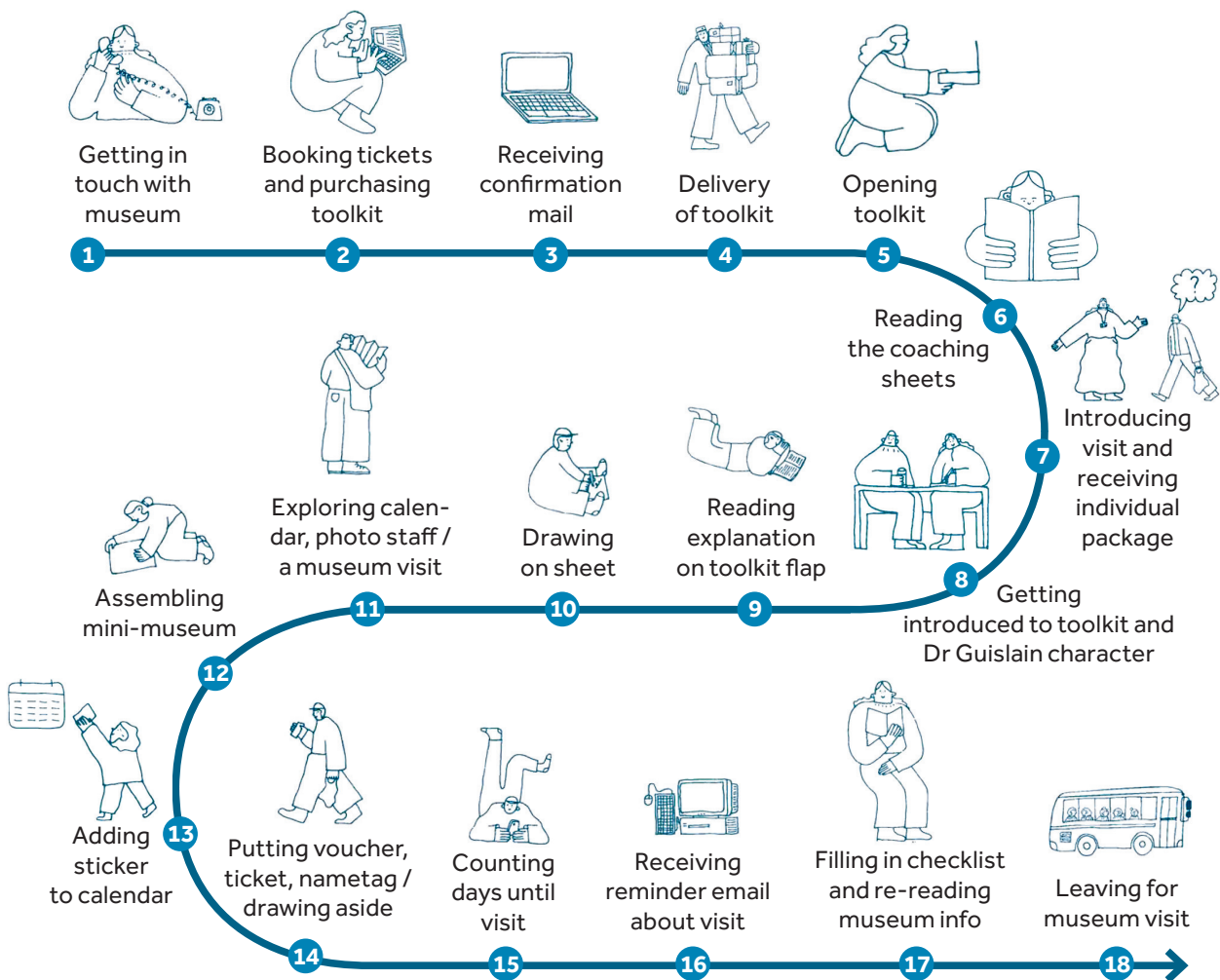
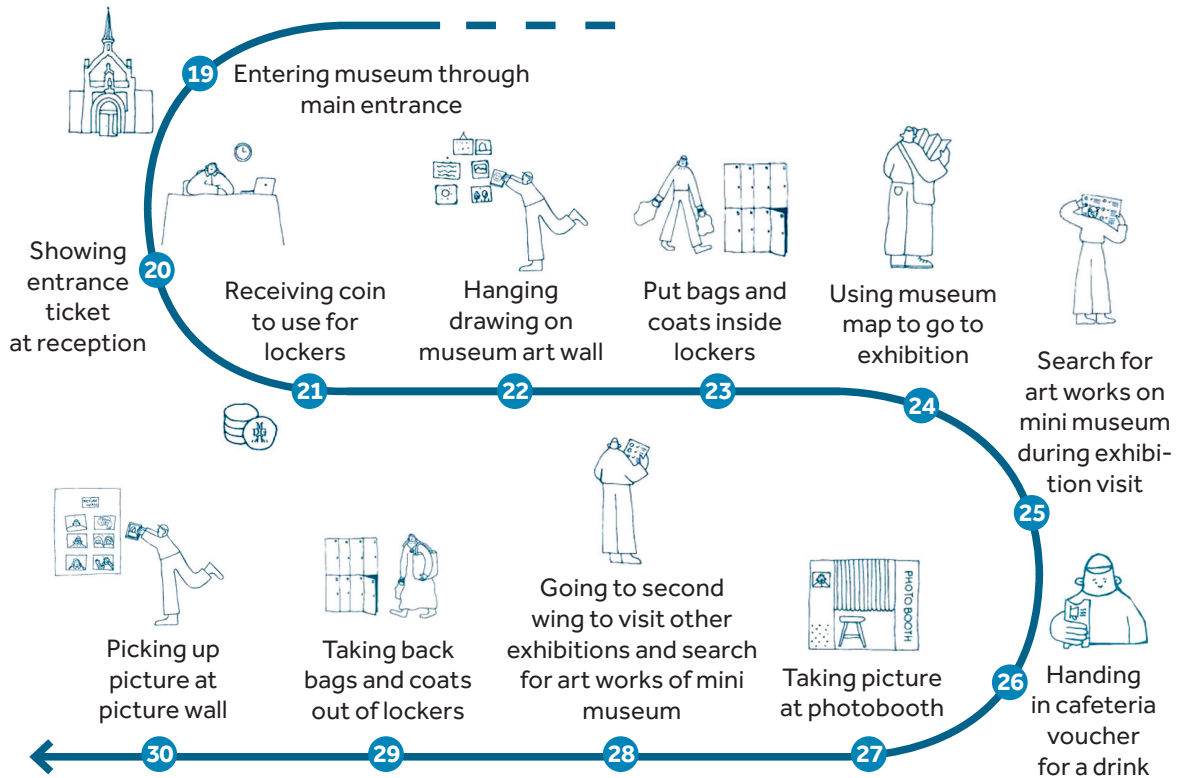
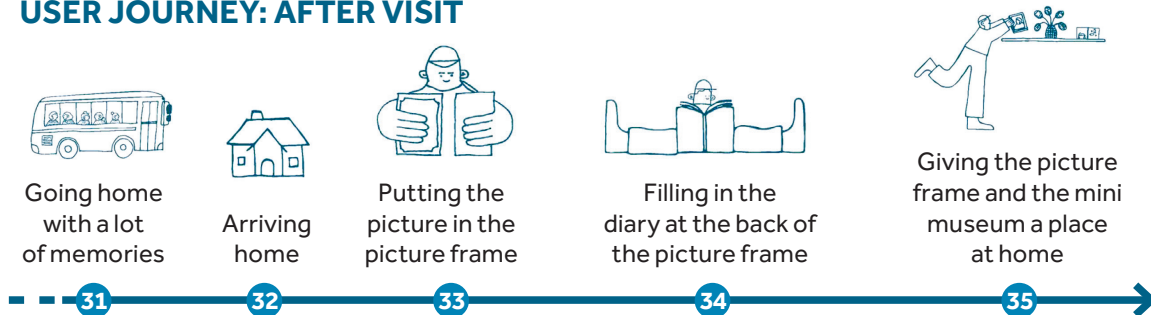


Figure 3.14. The future user journey before, during and after visiting the Dr Guislain Museum. (Study by: Julie Amy, Anthony Chalfoun, Britt Pellens)

USER JOURNEY: DURING VISIT



USER JOURNEY: AFTER VISIT



3.5. Description of three prototypes: Toolkit, Handy Plan and card game

3.5.1. Prototype 1: Toolkit focuses on pre-service

For several months the design team proceeded along a long way of observations, analyses and studies. The outcome showed that multiple challenges and problems existed during the visit to Dr Guislain Museum in Belgium, such as lack of structure and context, insufficient signage, lack of engagement and interaction, visitors seeing lots of new faces, being overwhelmed by sounds, images, objects and movies, and being unaware of the museum's rules of conduct. These challenges can be directly linked to the lack of visitors' preparation and not being ready for the visit.

Visiting a new place can be stressful, especially in a museum where a visit is supposed to be relaxing, enjoyable and pleasant. For people with special needs having a memorable experience can also be a challenge. A person with a mental impairment is often in need of predictability and preparation. The design solution of making a Toolkit (see Figure 3.15) helps to prepare a museum visit, so that the stress level is reduced for the person with a mental impairment as well as their caregiver, parent, teacher, friend or another companion.




Figure 3.15.
A Toolkit prototype to prepare for a museum visit. (developed by: Julie Amy, Anthony Chalfoun, and Britt Pellens – Space & Service Design – Thomas More, Belgium)


The outcome of this prototyping is a preparatory toolkit in advance of a museum visit. To design this toolkit, one had to focus on such challenges as: facilitating enough planning in advance, providing a safe and recognisable environment, and creating anticipation, interaction, and excitement. The principle of a 'one fits all' approach answers the needs of a broad range of users, including people with a mental impairment, children, students, teachers and others. It is a combination of items or "kits" delivered to the prospective visitors' homes and facilitating their preparation for the visit. The toolkit can be ordered in advance (one for each visitor). The toolkit comes as an Individual folder and a Coaching folder. As their names show, the Coaching folder is for the coach, it contains informative sheets. The Individual folder (see Figure 3.16) contains items that help the visitor prepare for the visit.


The Coach folder for the caregiver contains a user manual and information about how to prepare for the visit. The folder for the visitor has many items, and each item has a purpose. To help the caregivers use and explain these items to their charges, the sheets in the user manual list all the things and when and how to use them. **Five sheets** are intended to assist the coach to use the Toolkit and prepare/engage the client for a museum visit: (1) the user manual, (2) a list of the items in the Toolkit, (3) who Dr Guislain is, (4) general info about the museum, and (5) a mini guide to the collection.


MUSEUM INFO!

Basic info

 Tue – Fr: 9am – 5pm
Sa – Su: 1am – 5pm
Closed: 24,25 & 31/12 & 1/1

 Jozef Guislainstraat 43B, 9000,
Gent, Belgium
*Drive across the tram tracks
into the white gate.*


 Must see tour (min. 1h)
Complete tour (min. 2h)


 Excursion with a guide (min. 4h)
Interactive game (min. 1,5h)


The unwritten rule


All kinds of games are spread around the museum, and of course you are allowed to touch them. You are not allowed to touch the real art!

How to get there?

 There is free parking and bicycle storage.

 TAXI: www.elektrischetaxis.be

 Van Gent St. Pieters:
tram 1, stop 'Guislainstraat'

 The museum is wheelchair accessible.
There are elevators in each wing.

Checklist!

Don't forget to bring following items:

- Name tag
- Ticket (These can also be found digitally in the system)
- Museum map (You can also find this at the reception)
- Drawing (To hang on the museum wall of art)
- Must-see Tourguide
- SMILE! bring your biggest smile for the photo!
- Lunch
-

What's inside the museum?

- Sensory bag (Sunglasses, headphones, ...)
- Wheelchairs
- Elevators
- Lockers (Get a token at the front desk)
- Time-out zones
- Cafeteria (Here you can buy a snack and drink)
- Garden
- Souvenir shop

Figure 3.17. The general information sheet is about the extra services available as part of the prototype (developed by: Julie Amy, Anthony Chalfoun, and Britt Pellens – Space & Service Design – Thomas More, Belgium).

It is a recap of the information you can also find online but in a handy format 'to put on the fridge or on the agenda' of the supervisor. See it as a handy checklist for what to bring to the visit. This is the toolkit for visitors with mental impairment. The entrance ticket is a customised tangible access item to the museum (see Figure 3.18). The ticket will increase the anticipation of the visit, especially for mentally impaired people. The receptionist will also automatically understand how to approach the particular owner of this kind of ticket. It was also planned to add a QR code that helps promote the museum website during the preparatory period but in a later phase of prototype testing, it was discovered that a QR code is not the best method for distributing information to this target group.

Figure 3.18. Items for the visitors to explore before and after the visit in the Toolkit prototype. (developed by: Julie Amy, Anthony Chalfoun, and Britt Pellens – Space & Service Design – Thomas More, Belgium)



The prototype (red frame) in the middle of the first sheet gives the user a **drawing opportunity**. Expressing oneself can help one keep in touch with their feelings; the drawing item is a free space to express oneself on paper. In the end, one brings their masterpiece to the museum, and it will be showcased on a unique wall. This item lets the visitor participate in the exhibition. The item helps to start with engagement and creates enthusiasm, it is an introduction to the theme of art and the museum. It helps in exploring the connection between art and 'being different'. One can leave something behind. It could be difficult for some users to reflect on the question.

A map of the museum visit (**User journey** scheme) is also included in the toolkit. Unlike the normal map, this item tells the visitor about the journey that awaits him/her, it is a pathway of successive activities and experiences that will take place during the visit, a user journey of the visit. This item will make the visitor experience more manageable and more comprehensible, especially for people with mental impairment, who sometimes tend to want to have everything clear, predictable and successive in their mind.

Spatial awareness could be complex for some people. Unlike ordinary detailed maps, the **Floorplan map** is clear, simple and easy to read, it will serve all visitors to be able to navigate inside the museum with ease and showcase the location of the 4 exhibition rooms along with the overall circulation between the spaces. With these clear forms, the visitor learns different ways (text/colour) to read the table of contents in chronological order of the visit and how to go to the reception.

The staff of the museum is also part of the experience; visitors are likely to encounter museum staff and have short communication with them. Taking this into account, an aspect of the preparation for the visit should be getting familiar with the **faces and roles of the staff** (see Figure 3.18) and recognising them. That will make the visitor experience more comfortable and less confusing. After introducing the prototype to the museum, it was decided that since the museum has many employees and volunteers, photos of only four people working at the reception will be in the toolkit, so the visitor will for sure meet one of them.

The calendar that is also included in the toolkit gives the possibility to introduce the time frame of the visit and creates structure. The daily reminder can lead to more engagement and enthusiasm. The mini museum (see Figure 3.19) explains well what a real tour during their visit will contain. The museum has a lot to show. Along with the map, the mini museum will showcase a selection of essential objects to see inside the museum, specifically inside every exhibition room. It's creative, and the 3D way to highlight these must-sees makes the preparation more fun and engaging and indirectly explains the location of objects before the visit. The visitor can build a museum model and stick the elements inside.

What is better than catching a memory and putting it inside a frame? After you finish the visit, a picture of the visitor will be taken to memorise the visit. The corresponding item is a frame where Dr Guislain holds your photo taken at the museum – an after-service and a souvenir to be taken home with the visitor.

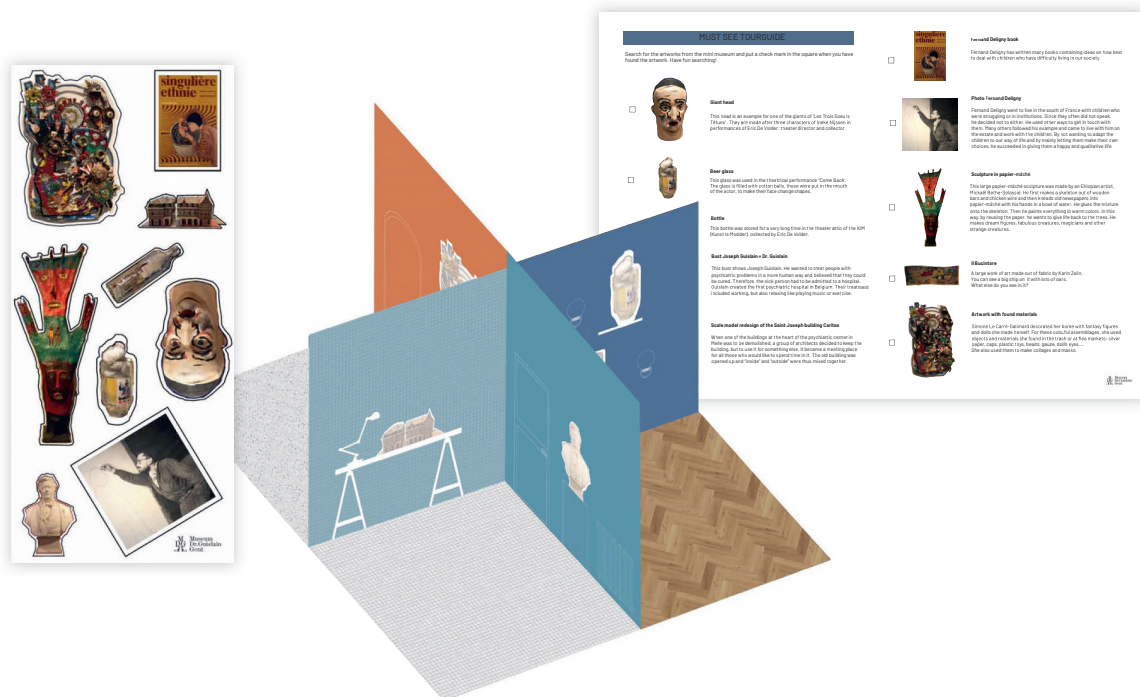


Figure 3.19. Mini museum in the Toolkit prototype. (developed by: Julie Amy, Anthony Chalfoun, and Britt Pellens – Space & Service Design – Thomas More, Belgium)

The various items in the toolkit provide a **solution to specific problems** identified earlier. During the Develop phase, these items were specified and created. This allowed the designers to discuss the prototype with a test panel and study how its use could be optimised. In addition to this, caregivers of the charity organisation *De Bolster* were surveyed about the use of the toolkit. The entire service was developed: from ordering to receiving and using the toolkit. The design team observed (see Figure 3.20) how one person with mental impairment (Stephanie) and her caregiver (her mother) discovered the toolkit.

Stephanie has a mental impairment due to which she has the emotional and intellectual age of someone around 6 years. Neither Stephanie, nor her mother knew anything about the toolkit, they had not had a look at it in advance nor seen the explanatory video. The designer did not help during the test and was only there to observe. Different aspects

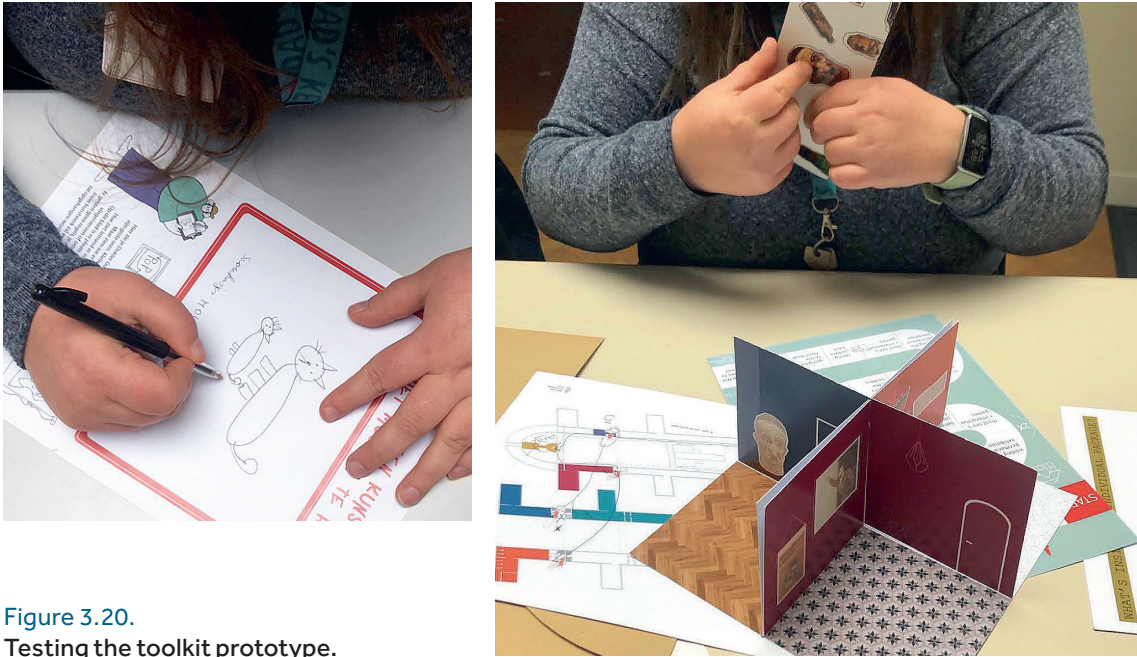


Figure 3.20. Testing the toolkit prototype.

were considered while testing the toolkit:

- how easy it was to understand it,
- what the process was like,
- what the timing was,
- highlight test (I), comprehension test (II), task test (III), and observation (IV).

New challenges also occurred: predictability, readability, balance on quantity, grammar and choice of words, and the necessity to create links between different files. Based on feedback, the prototype was developed further. The toolkit can be ordered from the museum website. To estimate the cost of the production of the toolkit a tender was asked from a printing agency (see Figure 3.21). This also allowed the designers to check the financial and technical feasibility of the prototype.

TALKING MONEY

4 x Individual map: 4 x €4.60	
1 x Coach map: €6	= € 30.35
Delivery and packaging: €5.95	<hr/>
	= € 7.5 / p.p (#250)
	= € 10.80 / pp (#100)



Figure 3.21. Toolkit prototype and its indicative price. (developed by: Julie Amy, Anthony Chalfoun, and Britt Pellens – Space & Service Design – Thomas More, Belgium)

To bring all the information together, the business model canvas is often used. It allows having an overview of the entire business on one sheet (see Figure 3.22). A business model canvas is added in Appendix 4.

BUSINESS MODEL CANVAS

<p>Key Partners</p> <ol style="list-style-type: none"> 1. Organization for mental impairment (example Mind Tour) 2. Government collaboration 3. Wealthy volunteers 4. Sponsors 5. Print shops 6. Delivery service companies 7. Graphic designer/office 8. Website designer/office 9. Promoting agencies/advertising <p>Partner's activities:</p> <ol style="list-style-type: none"> 1. Printing services 2. Delivery services 3. Promoting services 4. Donating/financial and services 	<p>Key Activities</p> <ol style="list-style-type: none"> 1. Good communication from the museum 2. Easy website for ordering 3. Welcoming surrounding 4. Updating the toolkit according to exhibitions 5. Arranging the orders at the museum 6. Assuring the delivery of the toolkit 7. Promoting the service <p>Key Resources</p> <ol style="list-style-type: none"> 1. Museum volunteers and staff 2. Museum space and content 3. Cafeteria 4. Museum website 5. Franking machine 	<p>Value Propositions</p> <ol style="list-style-type: none"> 1. Pre-visit awareness of the museum 2. Staff recognition 3. Anticipating the visit 4. Creating excitement 5. Scheduling and structuring the visit 6. Informative content 7. Orientation and navigation inside the museum 8. Introducing the founder of the museum (DR. Guislain) 9. Making the visitor a part of the exhibition 10. Giving an after-visit gift 11. Explanation manual for our service itself 12. Making the future visit more real and tangible 13. Relieving the stress of the visit 14. Turning the museum visit to a enjoyable experience for all 15. Visit more accessible (experience way) 16. Attractive designs and graphics 17. Visitor not forgetting his needs during the visit 18. Brief of most important must see 	<p>Customer Relationships</p> <ol style="list-style-type: none"> 1. Comprehensible use 2. Transactional relationships 3. Self-service (order the toolkit by yourself) 4. Assistance video 5. Automated communication 6. Welcoming and hospitality at the reception/café <p>Channels How to reach</p> <ol style="list-style-type: none"> 1. Via museum website 2. Via calls/messages/emails 3. Via online promotions 4. Via public promotions 5. Via concerned organizations 6. Reception at the museum 7. On website (self printing toolkit) 8. Delivery service 9. After visit introduction of the toolkit 	<p>Customer Segments</p> <ol style="list-style-type: none"> 1. People with mental impairments 2. People with physical disability 3. Caregivers 4. Family and kids 5. Schools 6. Museum goers (not needing a guide) 7. Museum staff 8. Accessible museums for inequality
<p>Cost Structure</p> <p>It is a value driven service</p> <p>Costs are</p> <ol style="list-style-type: none"> 1. Labor cost to assemble the toolkit (could use extra staff) 2. Costs for paper buying and printing 3. Costs for updating the website regularly (web-designer) 4. Costs for upgrading the items (need a graphic designer) 5. Cost for the delivery service <p>Environmental costs</p>		<p>Revenue Streams</p> <ol style="list-style-type: none"> 1. Revenues <ul style="list-style-type: none"> • Ticket revenue • Toolkit revenue • Sponsors revenues • Financial donations • Guides tours revenues 2. Museum payments (now) <ul style="list-style-type: none"> • museum main-entrance • Staff • Cafeteria products • Basic needs (electricity, heat...) 3. Revenues method <ul style="list-style-type: none"> • online payment • payment at the door • bank transfers (donations) 4. Payments with the service <ul style="list-style-type: none"> • Delivery service • printing and producing the toolkit • Extra staff (depends) • Promotions online • Toolkit updates • Website upgrades <p>Societal costs</p> <p>Societal benefits</p>		<p>Environmental benefits</p>

Figure 3.22. The business model for the new inclusive museum services (Canvas by Strategyzer)

Adapted from businessmodelgeneration.com by Business Models INC.

3.5.2. Prototype 2: Handy plan focuses on wayfinding

This prototype was focused on the experience of visiting the Dr Guislain Museum. After discussing the problems people with mental impairment have in navigating the space, the design team developed a handy plan consisting of different transparent layers that can help the visitor find their way to different rooms and facilities of the museum. One can take the handy plan when entering the museum and return it afterwards. The user journey described in the previous chapter in Figure 2.3 explains how the ‘touchpoints’ for this prototype were chosen.

Testing the prototype showed that the handy plan created in transparent Perspex was too heavy for visitors to use, so designers needed to think of alternative materials to use. The design team also realised that the solution might remain too complicated for people with mental impairment.

In mutual consultation with the designers, the staff of the museum chose to focus on the toolkit and the plan of the museum in it first, in order to prepare the visitors with mental impairment and their caregivers for their visit.

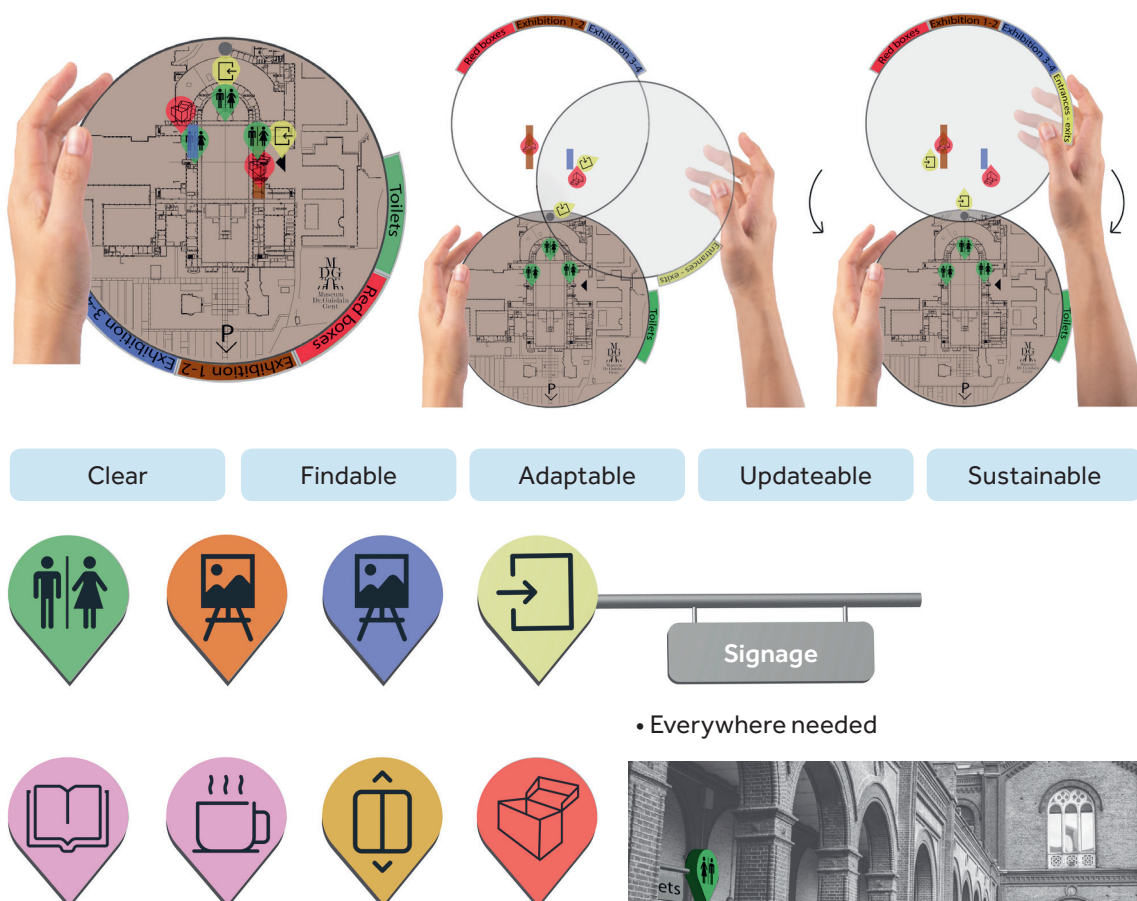


Figure 3.23. Prototyping the collection point of handy plans and signs in the museum. (Study by: Tafara Chibebe, Nicolas Saliba, Jeroen Schoonheim)

In an internship at the Dr Guislain Museum in Belgium, a design student focused on the further development of the handy plan into a more usable object in terms of materials and readability. To add it to the museum service system in the future, more time and budget are needed since the museum signage also needs to be adapted (see Figure 3.23). The signage and handy plan go hand-in-hand. After introducing and testing the toolkit, it will be possible to focus on this handy plan.

3.5.3. Prototype 3: Card game focusing on entertaining the visitors

Like the student designers in Belgium discovered that one of the issues on museum visits was the lack of fun, Estonian research students also noticed this issue while observing mentally disabled visitors. A museum-based card game was designed for Pärnu Museum in Estonia. During the observation, designers mapped the objects that attracted visitors the most (questions were asked about the objects, photos were taken, etc.). An easy prototype was created using printed photos and cardboard. A pack of cards was presented to the teacher guiding the group in the museum, and a table for playing the game was shown to the teacher with an explanation of how to play the game. The first version of the manual suggested sharing the cards between players and drawing cards from the person next to you. In case you received two cards with the same photo, you were able to put the cards on the table. The one who does not win is the person who has a “lonely card” (a card without a double).

While testing the game (see Figure 3.24), it became clear that there were too many cards. Players got bored. In addition, determining the losing player was not the best solution since mentally impaired children were more sensitive and losing a game made them sad.



Figure 3.24.
Testing the card
game at Pärnu
Museum

Figure 3.25.
Museum card
game prototype
(second version)



After testing, we reduced the number of cards by 50 per cent, used colour photos (see Figure 3.25) and changed the game's instructions, so the winner of the game is the one who gets the lonely card at the end of the game. We also added two more options on how to use the cards:

- Divide a pack of cards into two piles. Together find cards that have the same picture on them. The winning group is the player (or group) in whose pack was the "lonely card".
- Divide a pack of cards between group members and start the museum visit. Ask group members to spot the places seen on the cards. Look and discover the objects in the museum.

The card game is not meant only for mentally impaired visitors. It can be a museum souvenir that visitors can buy or a tool for teachers to engage students during museum visits.

So, in conclusion, it could be said that there is no one correct way of developing, improving and prototyping services. Prototypes will be created based on actual problems that occur during the research (the Discover phase and the Define phase). It often happens that a prototype needs improvement after testing or is not suitable to solve visitors'/ customers' problems at all. That is also fine. It is better to fail with prototyping in the development phase than to invest money into a service that no one will use.

Chapter 4

Marketing and communication of inclusive tourism and services

4.1. Inclusive tourism marketing strategies

An organisation's strategy for providing inclusive services depends on the nature of the product and the needs and specific characteristics of the consumer segment.

4.1.1. People with mental impairment as a market segment

Successful marketing of an organisation is based on knowing the needs of the potential visitor. Making services accessible to people with different types of disabilities is not just a matter of business ethics; it is also a business opportunity. Providing accessible services and products for people with different accessibility constraints is one of the critical competitive factors for travel destinations and businesses. This market segment is not homogeneous and includes many different sub-segments with very different and varying needs, depending on the type and level of disability. For example, people with reduced mobility, impaired hearing, or mental impairment will have different needs and experiences when visiting a restaurant, a museum or a nature trail.

Based on the type of impairment, there are seven main segments of accessible tourism: mobility, visual, hearing, speech, mental, hidden impairment, and elderly population. The needs and consumer behaviour of people with different degrees (mild, moderate, severe) of impairment also differ. While a client with a mild mental impairment is most likely to have no special or differing needs for most services, clients with more severe impairment may find many traditional services inaccessible or only usable with the help of an accompanying person.

The main segments of the accessibility market, including the mental impairment segment, can be divided into four sub-segments:

- 1) Persons with low or no specific accessibility needs. Companies can provide an accessible service to these visitors with no or minor additions, adaptations, or improvements to the service.
- 2) Persons with all kinds of accessibility needs. This segment already requires a variety of service adaptations/enhancements.
- 3) Persons with specific accessibility needs. These clients already need a personalised approach to meet their specific needs.
- 4) Market segment with higher-level specific accessibility needs.

However, relatively little attention has been paid to the accessibility of services for people with mental impairment in the tourism and leisure sector, even though providing services for people with mild and moderate disabilities does not require costly improvements. As the segment is not homogeneous and intellectual disability can be “varied, unique and highly complex”, and one disability can be complemented by another, a personalised approach is often needed when working with this group. The needs and consumer behavioural aspects of this market segment and sub-segments were further elaborated in Chapters 1 and 2.

4.1.2. Market strategies and promotion

An organisation can apply two basic strategies to promote its services to people with mental impairment in different sub-segments:

- 1) **Universal design strategy**, where the organisation develops/adapts/adds to its products and communication, making it accessible to visitors in the market who traditionally have not had access to it.
- 2) **Specialisation strategy** – the organisation develops its products for people with mental impairment or sub-segments, focusing on the particular and often individualised needs of such people.

4.1.2.1. Universal design strategy

When an organisation adapts/adds to its services to make them accessible to people with mental impairment (mild to moderate), it will not always be necessary to make very substantial adjustments, as would be the case for people with reduced mobility or severe intellectual impairment. More often, these will be minor enhancements or adjustments, such as more perceptible information on the organisation’s website, easy language in interpersonal communication, visible signs, visual pictograms, the openness of employees, etc. With this strategy, the products/services are designed to be accessible to a wide variety of visitor segments without making any visitors feel that the service is somehow not right for them.

An organisation using a universal design strategy builds its offer on 7 basic principles (Connell et al., 1997 in Story, 2001:4.5):

- 1) Equitable Use
The design is useful and marketable to people with diverse abilities.
- 2) Flexibility in Use
The design accommodates a wide range of individual preferences and abilities.
- 3) Simple and Intuitive Use
The use of design is easy to understand, regardless of the user’s experience, knowledge, language skills, or current concentration level.
- 4) Perceptible Information Principle
The design communicates necessary information effectively to the user, regardless of ambient conditions or the user’s sensory abilities.

5) Tolerance for Error

The design minimises hazards and the adverse consequences of accidental or unintended actions.

6) Low Physical Effort

The design can be used efficiently and comfortably and with minimal fatigue.

7) Size and Space for Approach and Use

Appropriate size and space are provided for approach, reach, manipulation, and use regardless of the user's body size, posture, or mobility.

The most effective solution for ensuring accessibility to tourism services, including both cultural and natural attractions, is the universal design approach (Chikuta et al., 2019), as it provides a quality experience not only for people with mild mental impairment but also for other consumer segments, such as seniors and families with children.

Promotion

Often, this visitor group does not want their "otherness" or "differences" to be highlighted as a unique feature, so it is essential for the organisation to display information through all available information channels (website, on the entrance door of the organisation, in promotional brochures, etc.) about accessibility and the availability of service elements that are valuable for these visitors, and to consider/eliminate any aspects that could create barriers to a quality experience.

The organisation can use the same marketing communication channels to promote/sell services for the accessibility segment as for other visitor segments: website, social networks, travel agencies, tourist destination-related channels, etc. It should be noted that the organisation's website is the most important source of information on the accessibility and availability of services. The principles of designing an accessible website for people with mental/intellectual impairment are presented in Chapter 4.2.2.2. It is also essential to present accessibility information in written text (using the principles of easy language) and easily understandable and internationally recognisable pictograms/signage describing accessibility for specific consumer groups and the range of services available. This issue is discussed further in Chapter 4.2.1.3.

An organisation needs to inform the public, potential visitors, or organisations representing their interests (NGOs) about the accessibility of services and inclusive business practices. This contributes to an accessible corporate image and recognisable brand development. Publicity activities, such as journalist visits, organisation of special events, etc. are various opportunities through which the inclusive business image of the organisation can be reinforced. Targeted social media marketing activities promoting positive word of mouth (WOM) advertising can effectively reach the accessible market and reinforce the image of accessible services and organisations in society.

Example

In Belgium, the tourism authority Visit Flanders developed the Flemish accessible tourism label. Although not internationally used, it is still well-marketed in the Flemish region of the country. It examines facilities regarding physical accessibility and then awards them with an A or A+ label. These labels can then be displayed on the organisation's website.

Visitors to the website are then immediately able to see if they can easily access the premises, ask for assistance, or instead not visit at all. The labels take aspects, such as access from public roads, parking, building access, bedrooms, furniture and amenities into account. Below is an example of these labels (for more information, visit <https://www.visitflanders.com/en/accessibility/designation-labels/>).



The A + label

When buildings contain the A+ label, it means that people with disabilities can easily and comfortably access and move around in the building.



The A label

Buildings with this label provide basic accessibility for visitors. It is possible that in some instances, a person might need additional assistance to get around.

4.1.2.2. Specialisation strategy

In addition to using a universal design strategy to make their offer accessible, companies can also specialise in serving a particular segment or sub-segment by designing products or services for people with mental impairment, focusing on the personal and specific needs of this segment. Such organisations specialise and offer professional services, providing professionally trained staff and specific service elements. These organisations can offer their services to business clients (B2B) working with people with mental impairment or sell directly to end consumers (B2C), ensuring a personalised response to their needs. It should also be considered that people with mental disabilities (especially severe) are often assisted in purchasing and consuming services by family members or professional support staff.

Promotion

B2B marketing is usually based on relationship marketing principles, working with daycare facilities, associations, special schools, and other organisations. The organisation offers a service that meets the needs and builds long-term cooperation with the client, which also facilitates the choice of services for the client in the long term. It is also important to note that in many countries, such services are financed by the state or various organisations, as clients with more severe mental disabilities are often on a low budget and can afford neither leisure services nor multiple therapies.

Example

The rural tourism and medical services provider Klajumi ⁵ (located in the Latgale region, Latvia), which offers horse-riding therapy, can be cited as an example of specialisation strategy practice. This rural tourism provider is experienced in working with people with various disabilities and admits that such travel is not an everyday activity for their clients. As a part of social tourism, the stay is financed by a grant or funded as part of a project. Patients (and their families) who come to the therapy are also most often financed by projects as the family's financial situation usually fails to meet the therapy costs. The organisation's services are predominantly used by children or adults with disabilities and their accompanying persons.

All employees are trained to work with this segment, and the following principles are considered:

- the topic of mental impairment is not touched upon neither before nor during the stay;
- guests are treated like any other guests;
- respect and individual approach are provided throughout the stay.

4.2. Marketing communication

4.2.1. Principles of successful communication

One of the universal design principles is ensuring that information is perceptible to visitors with different levels of perception. The following aspects should be considered while delivering services and information to people with mental impairment, children, seniors, and foreign visitors:

1. Is the information presented in the best way for the visitor?
2. Do the company employees have the necessary knowledge and skills to communicate successfully with visitors?

4.2.1.1. Interpersonal communication

As the accessibility and quality of services depend not only on aspects of the physical environment but also on the ability of staff to provide an adequate service, the openness and ability of the staff to communicate according to the perception level of the people in the target market is very important.

It is crucial to have a knowledgeable person at the point of service to whom specific questions related to the visitor's needs can be asked. It is also essential that this person can answer questions accurately, responsibly, and intelligently. "Being treated like any other able person" is one of the leading accessibility concerns (Chikuta et al., 2019).

⁵ Zirgu sēta "Klajumi" website. Available: <http://www.klajumi.lv/en/>

It should be noted that in less open societies, where people with disabilities are not daily users of leisure and tourism services, employees who have not had contact with these people might be confused about how to react and behave. Therefore, it is recommended to familiarise employees with the basic principles that should be followed in their interactions.

Fundamental principles in communication to make guests feel welcome (based on the Okeenea⁶ group):

- **Make eye contact** and be aware of the impact of the context. Tourist attractions are often new environments for people, therefore actively observing visitors has an added value to effectively communicating with them.
- **Smile** and have a kind facial expression.
- **Behave naturally.**
- Treat your conversation partner as an **equal** (even though sometimes the client's behaviour may be childish). Avoid patronising someone.
- **Be patient** (listen and give the client the needed time).
- Use **straightforward language** (do not use technical, professional terms and do not get into detail). Communicate about what is happening here and now.
- Provide **information in different ways:**
 - complement with written text and pictures (text can be read over and over again, while oral explanation is fluid),
 - use body language (e.g. a guide turns the head to the object of attention) to make it easier to understand content and emotion or
 - provide audio guides/recorded information booths/easy-to-use information boards so people can move around at their own pace,
 - provide a replica of museum items so visitors can touch the items.
- **Offer help** (but only if needed) **and challenge people** (e.g. allow visitors to make their souvenirs at the end of the visit). Let visitors give feedback after the visit.
- Do **not take any offence** (sometimes the behaviour and attitudes of the client might be different from socially accepted norms).
- **Avoid clichés** and try to acquire more information about people with mental impairment.
- **Be specific** with all information, services, and communications. People with mental impairment may perceive the world more straightforwardly and take information literally. For instance, Teo understands what money is and the basics of why and how it is used, but he does not understand the value of it and that money could be used both physically and electronically.

Communication with the target group might feel challenging initially, while new employees might miss contact with people with mental impairment. Therefore, it is essential to offer initial training about fundamental communication principles and accompany new employees while offering service to the mentioned target group.

6 Okeenea is a French company on the accessibility market: <https://www.okeenea-group.com/about-us/>

4.2.1.2. Easy language

Well-designed and accessible content of your info-boards, webpage, brochures and other materials are essential ways to increase the number of your service users and offer them better emotions during their visit. Accessible content in tourism helps the target group learn new things, participate in society and make their own choices. Before creating content and sign systems for mentally impaired people, think about what information you want to give them. Is it directions or an overview of some topic? Is it about some specific topic, explanation, or description? Also, you need to decide how you present the information, whether it is written on electronic screens, on paper materials, audio or video.

Straightforward language is one of the tools to increase inclusivity in society and lower communication barriers in different situations, including in tourism. Producing written, spoken, audio or video information meant for the public means that these materials should be accessible to all. Yet, if we take a look into texts in the media, public sector, and tourism fields, we see that spoken and written materials are often too hard to understand (because of professional terms and expert language) or too difficult to perceive (for example, the information is presented in a situation which is too stressful or because the subject of the message is too abstract, the text is on patterned background and formatting of text makes it hard to read) for people with mental impairment.

Access to communication is at stake for people with mental impairment and those whose communication requirements are not met in a given situation. Accessible language texts were initially designed for people with cognitive disabilities, but today it helps to increase access to communication to many groups of societies, people with and without disabilities. Here we also suggest thinking and evaluating whether the texts you present are essential to all people (universal design) or whether some texts should be exclusively accessible to some particular target group (specialisation strategy). After this step, you may decide which texts should be presented in an easy-to-read format and which may or should be presented on more complex matters.

The reasons why some service users have enhanced needs for easy-to-read texts and information may (but need not necessarily) be the result of

- ... their disability or impairment,
- ... their different cultural backgrounds,
- ... their socioeconomic status and age group,
- ... their non-comprehensive language or reading skills,
- ... the effort they are willing to make to access information, etc.

What all these parameters have in common is that communication is not accessible if it does not meet the needs of the target groups.

Another aspect of accessible information is its retrievability: through which channels and how easily the information is available. These strongly vary depending on age, socioeconomic status, disability profile, etc. For example, is a person used to using modern electronic devices or does she/he prefer traditional written materials on paper or info-boards, how easy is it to navigate on the web page, etc.? If you know your target groups and how they retrieve information about your services before, during and after visits, then you can plan which information should also be presented in easy language.

Texts can present barriers in different ways, barriers that must be removed to make information accessible. To be accessible/to grant that access to information, texts must have the following features:

- **Retrievable:** Target group or text users must be able to retrieve the text.
- **Perceptible:** Text users have to be able to perceive the text using the sensory channels they have at their disposal.
- **Comprehensible:** Readers have to be able to comprehend the text.
- **Linkable:** Text users have to be able to link the text to previous knowledge to recall the information.
- **Acceptable:** The information must be offered so readers can accept the content.
- **Action-enabling:** The information must be given in a way that enables the users to act on it.

(In a broad sense, the above-mentioned features correspond to the human cognitive functions discussed here in section 1.2). Each of these accessibility features/steps has to be managed by the working memory, which has only a limited capacity in all people, but even more so in the previously mentioned target groups.

There is always a text and a user perspective: texts must have certain features in order to enable users to perform in the way described in Figure 4.1. The users of a particular text must be able to follow all the steps displayed on the right side of the chart to get to the point that enables them to act based on that text. They will not be able to act based on information derived from a text if they fail one of the previous steps. The steps build on each other (as also human cognitive functions do; see Figure 1.2 in Chapter 1 of this guidebook).

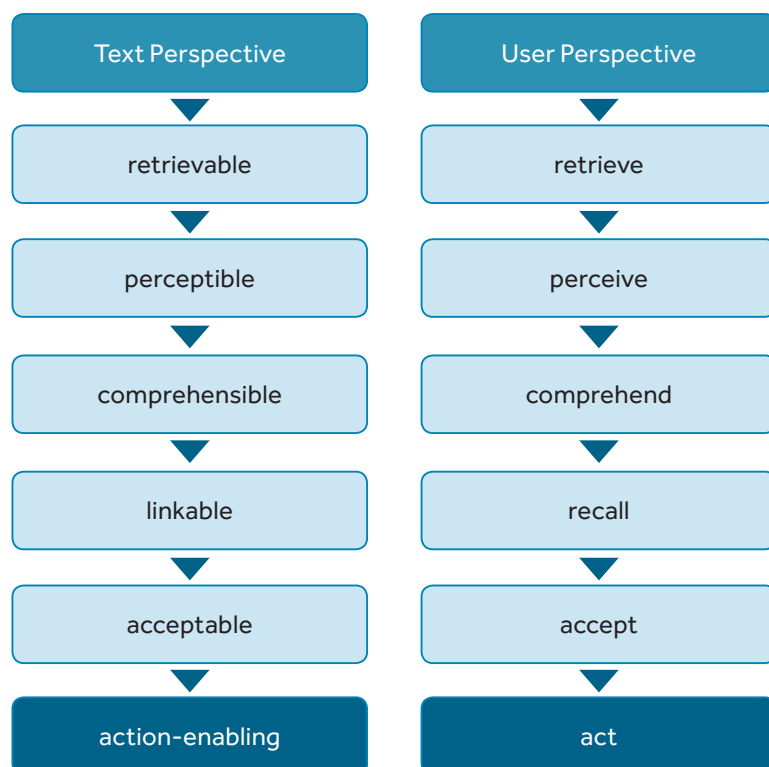


Figure 4.1. Accessible communication: text and user perspective (Maaß, 2020: 27)

How to compile easy-to-read text? Easy language contains many rules which help us make texts (as well as speech) more accessible. Those rules may vary for different documents and instructions, but the following Table 4.3 will give you some basic guidelines on what to consider while compiling easy-to-read texts. Rules on how to create easy-to-read texts are divided according to different topics, such as text structure, semantics, etc.:

Table 4.3. Guidelines to compile easy-to-read texts

Visual and media design

- Larger font sizes
- Each sentence on a new line
- Do not hyphenate words! If needed, share one sentence on two lines
- No word truncation at the end of the line
- Text is left-aligned
- Keep empty lines between paragraphs
- Use a simple and clear design which is easy to follow
- Use a clear 1–2-colour background for your materials, do not use photos or patterns for text background
- It is easy to read the font Arial and Tahoma. It is complicated to read Times New Roman and Century
- Do not use the font where letters are too close to each other, for example, Gill Sans MT. Condensed;
- Avoid text in italics and skinny font, for example, Eras Light ITC.
- Do not use styles that are oblique, italic, or too condensed. Neither should you use ones that are ornamental, script, or unusual.
- Use text with size Arial 14–16.
- Keep line spacing at least 1.5 or more.
- Write your text in lowercase letters. It is more difficult to read words written fully with capital letters (for example FOREST).
- Avoid underlined words and colourful letters because it makes it harder to follow the text.
- Colours! Try to choose a suitable colour palette. Using some colour combinations may make it more difficult to distinguish and understand the content of written information. One reason this happens is that the colours may be too similar; another is that shades that clash too much can blur. Some visual impairments, e.g. colour blindness, impact how people distinguish between colours. Examples of “bad” combinations are red/green, purple/blue, orange/yellow, or two hues of any one colour. Therefore, it is strongly suggested to use contrasting colours.
- Write numbers, like “1” and “2”; it is better to avoid words to designate numbers.
- It is challenging to understand percent (for example, 34%) and large numbers (for example, 1 123 456). Instead, use words such as “a lot”, “many”, “a half”, “one third”, etc.
- Longer texts need page numbers (in the lower right corner).
- Headlines clear and in **Bold**

Word structure

- Short words
- Separation of compound words with hyphens
- No abbreviations
- No passive voice
- Easy-to-understand words

Vocabulary

- Preferably no foreign words
- Foreign words should be explained where they are needed

Sentence structure

- Short sentences

Semantics

- No negation
- Avoid texts with hidden meanings (metaphors).
- No lexical variation in the text: same designation for the same concept

Text

- Relevant information first
- Clear structure: subheadings are used
- Readers are addressed directly
- Every sentence should contain only one meaning
- Use clear and short headlines which indicate the content of the text
- Text should contain necessary information which helps the reader to enjoy the offered service
- Important information should be at the beginning of the text/ in bold or placed in a separate box
- Avoid subchapters
- Simple and straightforward pictures, symbols, and graphics help one comprehend text and information. When using photos avoid those with too many details. If you illustrate your text with photos, use the same photo to illustrate the same thing consistently.
- Think through the amount of information. A lengthy text is not attractive and may feel too demanding.
- Use the same style throughout your written materials.
- Correct language.
- No "children's language".
- Use examples which can be easily associated with everyday life.
- Use the same words and expressions throughout the entire text.
- Avoid acronyms and shortened words; write names and expressions in full.
- It is suggested to repeat important information.

After reading the guidelines regarding easy language, there are additional suggestions to take into account:

- consider paper quality (for example, it is better to read on the naturally white and not reflective paper),
- use (or rather: ban) quotation marks,
- good line and page design (easy to read and follow),
- use of imagery (to make it more interesting and enhance interpretability), etc.

If you are already using easy language and have easy-to-read texts on your webpage and info boards, etc., then let people know that your information is accessible by using the special symbol for that:



Figure 4.2. The European Easy-to-Read Logo

Please follow the rules on how to use the logo:


<https://www.inclusion-europe.eu/wp-content/uploads/2021/02/How-to-use-ETR-logo..pdf>.

Please remember that you may use the logo **only in case** the easy-to-read text is proofread by two people with mental impairment.


In Estonia, you may get the service from NGO Vaimupuu (www.vaimupuu.ee) and EVPIT (Eesti Vaimupuudega Inimeste Tugiliit, <http://vaimukad.ee>).


Figure 4.3.
A copy of an article
from the homepage
of Inclusion Europe.


Interview with Katarina Ivanković Knežević - Easy to read





Click on a word which is in **blue and bold** to read what it means.


 Katarina is the director for Social Rights and Inclusion at the directorate general for employment, social affairs and inclusion of the [European Commission](#).

 We asked Katarina about her work in Croatia on the National level.

 She told us that she has been working on inclusion and [human rights](#) for 20 years and she also told us about that she is working on gender equality.

 In the interview we talked with Katarina about social policies and how the [European Union](#) will look to develop and rise.

 She told us a bit about the [European Disability Strategy](#) and how it helps people with [intellectual disabilities](#) in their daily lives.

 The European Union wants to see change in the next ten years for people with intellectual disabilities.

Below (Figure 4.3) is an example from the homepage of the NGO *Inclusion Europe*.⁷ The sentences are short, aligned to the left and illustrated with supportive graphics. Have you seen this type of text in the tourism sector?

If you are looking for further reading, please go to the Inclusion Europe homepage, which is provided in different languages: <https://www.inclusion-europe.eu/easy-to-read-standards-guidelines/>

We emphasise that during the process of improving your service with easy-to-read possibilities, please, **cooperate with experts on easy-to-read language and with the target group** – people with mental impairment. It is important to remember that before you may use the Easy-to-Read Logo, one or several persons with mental impairment (whose native language is the language you are using in your publication) should proofread your publication. The names of the proofreaders should appear in the brochure.

4.2.1.3. Application of accessibility symbols and signs

Accessibility symbols (icons) and signs are necessary for all the areas of your organisation/ working areas that the visitors have access to. The main aim of these symbols and signs is to provide information about your services in a simple way and provide information on how to move around in the premises of your organisation. Therefore, these symbols and signs must have clear and simple content, be clearly visible, with a straightforward design and be perceptible to all. To clarify the features of the accessibility symbols and signs, we can say that these symbols and signs need to be (1) readily identifiable from a reasonable distance, (2) self-descriptive, (3) simple by design and understanding, (4) practical, and (5) not mistaken for other existing signage.

Accessibility means that symbols and signs are practical, functional, and universal. In everyday life, we use a lot of information produced via symbols and signs: in traffic, public organisations, etc. These carry a range of meanings and tasks to direct people to do or not to do something, affecting our thinking and behaviour. In other words, symbols and signs help us create situations we expect and want to happen in every aspect of life, including tourism services.

In general, signs that you need the most in tourism might be:

- All **directional symbols** and signs, such as those pointing to your reception, services, staff, etc.
- Signage that you use to **identify permanently dedicated rooms** that will not change function, such as a restroom, lunchroom, storage room, conference room, or closet.
- **All informational signs** like “Employees Only”, “For museum visitors”, etc.
- Symbols and signs highlighting the **location** of building floors, stairwells, and all exit levels.
- The different types of **overhead signs and symbols**, like “Stairs” and “Elevator”.
- All **instructional symbols and signs**, such as “Please touch and feel”, “Take a look from here”, “Be careful ...”, “No photos”, etc.
- **Signs/maps** for navigating the building or area, such as plans for rooms, floors, or more extensive areas.

⁷ *Inclusion Europe* is a European NGO representing more than 7 million people with intellectual disabilities, as well as their family members. <https://www.inclusion-europe.eu/about-us/#mission>

In the following examples (Figure 4.4 and 4.5), you see two versions of how to use symbols to give people the needed information:



Figure 4.4. A good example of net park instructions at Zeit hotel in Līgatne (Latvia) that describes rules in a straightforward, non-verbal way for different target groups, e.g., children, foreigners, or illiterate people.

Figure 4.5. A poor example of net park instructions describing rules in a complex, overwhelming way that might confuse people by using drawings, text and different emergency numbers all at once. Moreover, information presented in this way will not help people without knowledge of the Latvian language.

KANDAVAS VIRVJU TRASES LIETOŠANAS NOTEIKUMI!

- Bērniem līdz 7 gadu vecumam jābūt vecāku vai likumisko pārstāvju pavadībā
- **Vienā trases posmā** (no vienas platformas līdz nākamajai) vienlaicīgi drīkst atrasties tikai **1 persona**
- Uz vienas starpposma **platformas** vienlaicīgi drīkst atrasties ne vairāk kā **2 personas**
- Trases elementi jāizmanto tikai tam paredzētajā veidā
- Nedrīkst apzināti kaitēt pārvietošanos sev un citiem dalībniekiem
- Lietus gadījumā, ja trase ir slapja, pārvietoties pa to ir bīstami
- Personām alkohola un citu apreibinošo vielu reibumā atrakcijas izmantot aizliegts
- Katrs dalībnieks ir pats atbildīgs par savu veselības stāvokli un tā atbilstību trases fiziskajai slodzei
- Vecāki ir atbildīgi par bērniem, kas atrodas uz atrakcijām
- Ja tiek konstatēti virvju trases bojājumi, par to jāinformē trases apsaimniekotājs

VIRVJU TRASĒ AIZLIEGTS!








Smēķēt
Lietot alkoholu un jebkādas apreibinošas vielas
Piegružot teritoriju
Apzināti bojāt konstrukcijas un aprīkojumu
Lietot necenzētus vārdus un izteicienus

Nepieciešamības gadījumā zvanīt:



113
Nesliekamās medicīniskās palīdzības dienests



112
Vienotais ārkārtējo notikumu numurs
Valsts ugunsdzēsības un glābšanas dienests



110
Valsts policija



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If you plan to increase or improve the signage of your organisation and services, it is good to keep the following aspects in mind:

- Signs need to be present **throughout the visitation process** – from the beginning of your service process till the end of the client’s journey (for example, starting from the local bus station; in the parking lot; from parking to and at the entrance; at the reception; in exhibitions; at the exit; and back to the parking lot). These signs should be placed at eye level and be shown in various directions to ensure that they will be seen.
- Symbols and signs should be **easily readable** while visitors are sitting or standing and with the possibility to read from various distances.
- Illuminate the symbols and signs well and make sure that the material that the signs are made of is **not reflective**.
- Use as many **generally accepted symbols** as possible for the most needed information. For example, for toilets, indicate accessibility for wheelchairs, etc.
- Try to use **written and pictorial/graphic designs together** – avoid giving too much (or only) written information as many service users may not be able to read written texts (incl. children, people with dementia, and foreigners).
- Ensure that all signs have **a similar design** (font, colours, the shape of signs, etc.) but remember that many accessibility signs have internationally set usage rules.
- Make sure that the colours of symbols and signs follow the international (or national) rules (sizing, colours, etc.).
- When designing signs, use similar pictograms, pictures, and symbols (do not mix different designs, colours, etc.) and remember that each sign should carry **a single message** (or have a single meaning).
- Use the **principles of easy and straightforward language**.

Most people not closely related to accessibility issues and mental impairments have relatively limited knowledge of symbols and signs directly referring to accessibility. If you start to develop your services towards being more accessible, then you must complete these tasks:

- 1) Share information about the accessibility of your services.
- 2) Educate other service providers and society about the symbols and signs of accessibility.

In many countries, there are databases or collections of pictograms and signs to refer to the accessibility of spaces and services. However, those signs could be only in theoretical knowledge and not in actual use, nor developed and used by small communities. This confirms that accessibility issues exist on several levels: (1) awareness of the need for accessibility, on the one hand, and (2) how to market or communicate accessibility in society, on the other hand.

Some symbols are universally accepted, while others are designed but only known in small communities. The most well-known is the International Symbol of Access (ISA). It is an internationally accepted symbol that denotes a place accessible for persons with special needs, especially wheelchair users (Figure 4.6). But this is not its only function, it may also refer to people who may have difficulty accessing a physical space due to various other reasons, including sensory (vision and/or hearing loss) and mental impairments.

The symbol is a blue square with an overlaid image of a stick figure in a wheelchair. People all over the world are familiar with it. The new and improved version of ISA is presented in Figure 4.6_1 and the story behind it can be read at <https://accessibleicon.org/>.



Figure 4.6.
The International
Symbol of Access
(ISA)



Figure 4.6_1.
Improved version
of ISA



Figure 4.7.
Cognitive impairment
by Global Accessibility
Awareness Day (GAAD)



Figure 4.8.
Cognitive impairment
Identifier Symbol (CII)
(Australia)

Debating and designing accessibility symbols and signs is an ongoing process, and the examples we provide here are just a tiny sample of all currently available. To get more information about different icons, including icons related to accessibility, please see https://www.w3schools.com/icons/fontawesome5_icons_accessibility.asp.

Special pictograms for museums are developed in the Netherlands by ISAAC-NF (organisations whose main aim is to use Supported Communication to improve the lives of children, young people and adults with a communicative disability through different activities. The pictograms are about communication in museums, but not yet internationally accepted. More information is available here: <https://www.isaac-nf.nl/museumkaart/>.

Signs in Figure 4.7 and 4.8 we present some symbols which are related specifically to cognitive and mental impairments and are used in different regions by different organisations.

Signs in Figure 4.9 and 4.10 are used by Accessible in the United Kingdom and mean:

- A – Evidence of disability awareness and/or equality staff training has been provided
- B – Safe or quiet space available
- C – Discount available for companions/caregivers
- D – Dementia-friendly
- E – Large print (text size 16+)
- F – Seating is available (if not readily available it can be requested)

As explained previously, accessibility symbols (icons) and signs are essential tools to provide easy and practical help to organise your services better. A more difficult question is how to put them into practice to help all involved/affected persons (including service providers and the target group – the clients). The only answer is taking the first step where you decide that you want to make your facilities/services, etc. more accessible. Then, evaluate what particular services you already have available for people with impairment and make sure that they know about these services. After that, start improving your services and communicate this ongoing process to the target group. During the improvement and communication process, do not forget to cooperate with the target group,

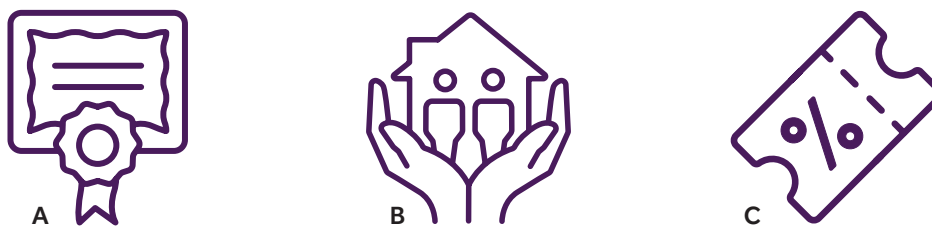


Figure 4.9. Includes signs A, B and C



Figure 4.10. Includes signs D, E and F

people with mental impairment and their caregivers, support persons and organisations working with mentally impaired people. You do not need to make everything accessible at once but moving along step by step will gradually lead to the facilities and services becoming more accessible.

4.2.2. Provision of accessibility information in tourism services

When thinking about how to market tourism services accessible to the target audience, the tourism service provider should think on the two planes – what information to communicate and how to communicate it successfully to reach the potential visitor. A key point that each tourism service provider offering and marketing their services should consider is to provide all the information that visitors need to make informed decisions and purchases. Today, most marketing activities occur online. A crucial step for any tourism service is to adapt the functionality and accessibility of its digital content on the web.

4.2.2.1. Pre-travel information on the accessibility of tourist services

Making your services accessible to people with disabilities is not only about the accessibility of the physical environment but also about providing accessibility information. Internationally recognised and recognisable pictograms on the organisation’s website, on the organisation’s door, on the organisation’s promotional brochures, or in other promotional materials will allow quick conclusions to be drawn about the accessibility of the organisation’s services to different visitor groups.

Information on essential elements of the service is vital for the visitor both in making a purchasing decision and consuming the service. If the organisation is aware of the information needs of the potential visitor (or their assistant/caregiver) and the communication channels used, it should accordingly display the information on the elements of the service offered that are necessary for decision-making. The following table (Table 4.11) summarises the importance of information (required before travel) for people with mental impairment in the services used in tourist destinations.

Table 4.11. Importance of information (before travel), for people with mental impairment (Buhalis and Michopoulou, 2011: 160–161).

INFORMATION REQUIRED BEFORE TRAVEL

	Very important	Important	Less important
Information about outdoor areas of the accommodation/attraction			
Easily recognisable entrance			
Automatic doors at the entrance			
Ramps around the building			
Parking for people with disabilities close to the building			
Information about moving inside the building			
Elevator length, width, height			
Height of staircase(s)			
Easily recognisable colours			
Easily readable signs			
Ramps inside the building			
Information about the common areas of the accommodation/attraction			
All the common areas are on the ground floor			
Location of accessible toilet nearby the common areas			
Layout of the indoor space of common areas (moving around quickly, special signage, tactile paths)			
Availability of large-print menus in the cafeteria/restaurant			
Availability of an 'induction loop' for hearing impaired using a hearing aid (e.g., at the reception desk, in public areas)			
Information about the security policy of the accommodation/attraction			
Accessible emergency exits (no obstructions in the way, large enough, etc.)			
Accessible emergency signs			
Plan of evacuation for disabled people			
Availability of alternative fire alarm signal (e.g., a vibration pad or flashing light for deaf persons)			
Information about the accessibility of rooms			
There are rooms specially designed for disabled visitors			
There are accessible twin rooms			
You can easily reach plugs and light switches			
The furniture inside the room can be easily relocated by you or your assistant			
It is possible to use your aids in the room (e.g., lifts)			
You can easily use the furniture inside the room			
The floor inside the room is clear of carpets, etc.			
Room service is available 24 hours a day			
There is an accessible toilet inside the accessible rooms			
Guide dogs are allowed in the rooms			
Toilet facilities for guide dogs			
Availability of an 'induction loop' for hearing impaired using a hearing aid (e.g., for the TV)			

As this visitor segment is not homogeneous and visitor needs and experiences can vary significantly even within one segment or sub-segment, service providers can also take a more personalised approach by finding out, before providing the service, what the visitor's specific needs are, such as the need for certain additional services or service adaptations. In such cases, electronic forms may be used, or the contact details may be listed, with encouragement to contact an organisation representative. By clarifying the client's needs in advance, a quality visitor experience will be ensured, and the organisation can also prepare more successfully for the client's reception.

4.2.2.2. Digital accessibility and website content improvement

The internet has become a regular daily habit for most of society. However, many people need more adaptability when using the internet, including additional devices or applications that help them perceive the information on the screen and interact with the content. And even if they are well prepared, websites are not always designed to be usable by everyone, and there is room for improvement for any enterprise that owns a website.

Imagine that your computer is switched on, but the screen is dark, and there is no mouse, just an audio device reading the content of the invisible website in front of you. You can navigate the page using only the keyboard, and you have to make, for example, an online bank transfer. How long would that take you? But that is everyday life for visually impaired people who use computers.

What is it like to watch a video in a place where there is noise and disturbance? Or, on the contrary, in a place where you have to be quiet, like a library? Or when the video is in a language you do not understand? For a person with a hearing impairment, subtitles are not an alternative, they are a necessity to get the message across.

It is commonly assumed that digital accessibility issues are only relevant to those with a functional impairment – visual, hearing, motor or cognitive. But in reality, digital accessibility and better functioning of websites will benefit many. Often our interaction with technology is influenced not only by our physical and cognitive abilities but also by our digital literacy or the performance of our devices. There may be times in everyone's life where we may have to deal with functional difficulties, whether temporary or permanent, such as a broken arm, eye surgery or memory problems. Using digital content can then prove difficult if there are no alternatives for obtaining and displaying it.

Therefore, the motto of digital accessibility is –
Essential for Some, Useful for All

Get more insight:

Watch some videos to see examples of why digital accessibility is of such importance: Web Accessibility Perspectives Videos: Explore the Impact and Benefits for Everyone (by W3C) <https://www.w3.org/WAI/perspective-videos/> or all 10 videos compiled <https://youtu.be/3f31oufqFSM>

The global debate on web accessibility practices is nothing new, but in recent years its implementation has become a mandatory requirement in many places, including the EU. As early as 1997, Tim Berners-Lee, inventor of the World Wide Web browser, launched the World Wide Web Accessibility Initiative to remove barriers for people with various functional disabilities. In 1999, the first Web Content Accessibility Guidelines 1.0 (WCAG) were published. The latest version released in 2018 is 2.1. These guidelines have also been incorporated into the international ISO standard ISO/IEC 40500:2012.

The **European Union** has also taken serious steps towards digital accessibility, with the adoption of the Web Accessibility Directive in 2016 to ensure that everyone in the European Union has a socially inclusive opportunity to participate in the digital economy and society. **It requires public sector bodies' websites and mobile apps to meet WCAG-based standards** starting from 2020/2021. Public sector organisations must also **publish a digital accessibility statement** on their websites and apps.

The next big step towards even greater accessibility and social inclusion in the digital environment is the European Accessibility Act, adopted in 2019, which also applies to several **private sector areas, including e-commerce services, e-books, ATMs, ticketing and check-in terminals, passenger transport** and more. Businesses in these sectors **have to implement digital accessibility standards by June 2025**.

Worth considering

Even if your business is not among the sectors obliged to implement the EU's common accessibility standards for their websites by 2025, you could be among the goodwill ambassadors in tourism and leisure services who make your website accessible to all people. By doing so, you will show that you do not discriminate against people based on their physical or mental impairment, you will attract new visitors, and you may even improve your website's Search Engine Optimisation and rank higher on Google or other search engines (due to meaningful page titles, headings, lists, alternative texts for photos and videos, readability, sitemaps, etc.).

While internationally accepted standards on the accessibility of digital products and services are being introduced in many places, these standards have largely targeted people with visual or hearing impairment and other physical disabilities. There has been relatively little research on making the digital environment more usable for people with mental impairment, hence also the scarcity of solutions. Likewise, the understanding of the digital accessibility needs of this target group is not profound among software developers either. The fact that the manifestations of mental impairment vary from person to person also makes it difficult to establish a common standard in this area. However, this issue has been addressed in recent years by both researchers and developers of web accessibility standards, and several accessibility problems have been identified for people with mental impairment:

- webpages that are dominated by text;
- lack of alternative non-text-based forms of communication (audio, video, images);

- pages that require much scrolling or have unclear navigation paths;
- website content saturated with complex and difficult-to-understand language, terms, and abbreviations;
- small font sizes;
- users have spelling difficulties and tend to rely on automatic spelling correction programs;
- users encounter frequent errors in entering information;
- difficulty remembering logins and passwords;
- difficulty in evaluating the results offered by the search engine, relying instead on the images found;
- difficulties navigating and browsing several sites parallelly (e.g. searching for the correct spelling to fill in the form).

However, some simple steps would increase the accessibility of your website to any users, especially to those with some kind of mental impairment. The World Wide Web Content Council (W3C) has developed recommendations to adapt your website to the needs of users with different cognitive abilities.

Key principles of website accessibility for users with mental impairment:

1. Help users understand what items there are and how to use them.

Identify what the website is about so the user can choose whether to proceed. Use icons, symbols, terms, and design patterns already familiar to users, so they do not have to learn new ones. Therefore instead, choose standard user behaviour and design patterns. For example, use the standard convention for hyperlinks (underlined, blue for unvisited; purple for already visited ones).

2. Help users find what they need.

Make navigating the system easy. Use a clear and easy-to-follow layout with visual cues, such as icons. Clear headings, boundaries, and page areas also help people understand the page design.

3. Use clear content (text, images and media).

This includes simple words, short sentences and blocks of text, clear images, and easy-to-understand videos that make use of straightforward language, images and colours.

4. Help users avoid mistakes.

A good design makes errors less likely. On online forms, ask the user only for what you really need to know. When errors occur, make it easy for the user to correct them.

5. Help users focus.

Avoid distracting the user from their tasks. If the user does get distracted, headings and “breadcrumbs” can help orientate the user and help them retrieve the context when it is lost. Providing linked “breadcrumbs” can help the user undo mistakes.

6. Ensure processes do not rely on memory.

Memory barriers stop people with cognitive impairment from using content. This includes long passwords to log in and voice menus that involve remembering a specific number or term. Make sure there is an easier option for people who need it.

7. Provide help and support.

Make it easy to get human help. If users have difficulty sending feedback, you will never know if they can use the content or when they are experiencing problems. In addition, it supports different ways to understand the content. Graphics, summaries of long documents, adding icons to headings and links, and alternatives for numbers are all examples of extra help and support.

8. Support adaptation and personalisation.

People with mental impairment might use add-ons or extensions as assistive technology. Sometimes, extra support requires minimal effort from the user via personalisation that allows the user to select preferred options from a set of alternatives. Support personalisation where and when you can. Do not disable add-ons and extensions! Sometimes users can receive extra support through personalisation.

9. Test with real users.

Involve people with mental impairment in the research, design, and development process. They are the experts in what works for them. This includes involving people in focus groups, usability tests, and the research and design team.

Useful information for web developers

W3C recommendations "Making Content Usable for People with Cognitive and Learning Disabilities"

Find more information on the possible user needs and ideas for solutions at <https://www.w3.org/TR/coga-usable/>

The current standard for digital content accessibility WCAG 2.1

The latest standard for the universal digital content accessibility is WCAG version 2.1 from 2018.

All the updates of the WCAG standard are published on W3C Web Accessibility Initiative's website <https://www.w3.org/WAI/standards-guidelines/>.

When the technical accessibility issues on your website are sorted out, some content-related suggestions could improve your visitors' overall tourism experience. When opening the website, it should be easy, fast and convenient for the visitor to find the information they are interested in, purchase the product or service they have chosen, or contact you. Your organisation's values and qualities will permeate all of this, especially if you have thought about the accessibility and usability of your website and on-site services at all steps. With accessibility on your website, you will already showcase your business values as those of a socially responsible and inclusive organisation.

What can be done to make your website and the information about the services or products you offer even more friendly to visitors with mental impairment? Even if this audience is most often travelling or vacationing with their family, caregivers and in organised groups, the information on your website can be a great way to help them choose your services and become your regular visitors. Accurate information provided in advance of the travel makes the visit more predictable. For example, printing out a map can help to

plan a visit upfront and structure the visit in as much detail as possible (see the example of designing such a map in section 3.6.3. of this guidebook).

Some practical ideas for your website content as a tourism service:

1. Show who you are

People want to know where they are going and what it looks like. For example, post photos and/or videos of what your place looks like, both indoors and outdoors. Tell them about the employees who work for your organisation and who they will meet during their visit. For example, a receptionist, a cashier, a tour guide, etc. This will help prepare those who have never been to your place before. If your employees wear uniforms, you can post a picture of an example so visitors can recognise whom to turn to for help on-site (prototype 1 in section 3.6.3. envisions visitors' familiarisation with photos of employees prior to the museum visit).

2. Location plan and navigation

Put an easy-to-understand map of your place (which can also be printed out) with recognisable symbols to help visitors find their way around – identifying the parking lot, entrance, exit, the information centre, toilets, cloakroom, café, rest areas, etc. Try to use the same symbols and signage also in the physical environment to avoid confusion.

3. Accessibility notice

If you have made sure that the environment and services of your business are accessible to people with reduced mobility or visual impairment, and your staff are also trained to work with people with mental disabilities, then you would probably want potential visitors to know about this. It is worth putting a separate accessibility notice (or accessibility symbol, see section 4.2.1.3.) on the website. Set aside one section to summarise all aspects of accessibility of the environment and services you provide, and include contact details for requesting further assistance.

4. Suggestions on what visitors should take with them

A forgotten camera or raincoat can spoil a trip for anyone. However, people with mental impairment may find it difficult to remember or foresee things that might be useful or necessary to them when visiting a tourist attraction. You could share a small list (a checklist) of things that could be useful to bring along for every visitor. Ideally, icons or symbols would illustrate such a list. You can indicate the things you provide onsite so that your visitors do not have to worry about them.

5. Do not forget to update the information

Providing thorough information on your website is crucial for any enterprise. But it makes little impact if the information is outdated. The key is to regularly review the content of your website and remember to update it accordingly if any of your services or products have changed or are discontinued.

***We wish you a great experience on your journey towards
increased accessibility to all visitors!***

Summary

The main purpose of this guidebook was to explain the importance of accessibility in tourism services and to provide practical tips on how service providers can develop and improve their services accessible for people with mental impairment. This guidebook is the result of the ERASMUS+ project “Mindful tourism services for mentally disordered people (MindTour)” activities which included research on tourism accessibility in partner countries: Estonia, Latvia and Belgium, and service design and prototyping in cooperation with industry partners of the project.

This was achieved through various objectives, including I) A situation scan of each partner country (Belgium, Estonia, and Latvia) to determine the current state of the local tourism industries and the ongoing efforts in each partner country’s tourism industry towards becoming more inclusive; II) To develop, test and upscale prototypes of toolkits that could be used by the tourism industry to become more inclusive; III) To develop this textbook which will help guide the tourism industry towards becoming more accessible for people with mental impairment (as well as for all people); IV) To develop a self-assessment tool which organisations can use to determine their current level of inclusiveness for people with mental impairment, and to serve as a guide towards identifying key aspects that the organisations can improve.

From this book, you learn that mental impairment has different forms and affects people’s lives in various ways. Yet, accessibility does not mean that only people with disabilities need it. Other groups benefit from accessible services as well: families with children, the elderly, people with different cultural or socio-economic backgrounds, etc. To create accessible services, you need to use the universal design and specialisation strategy. By combining relevant methods, you may develop services which are truly accessible for all and help you increase your visitor numbers. The guidebook includes a practical chapter about service design as a method and an overview of prototypes developed during the project. We hope that these prototypes give you inspiration and willingness to develop your services to make them more accessible to people with mental impairment. The last chapter about marketing and communication gives an overview and suggestions on how to market services, design the web more accessible, and why easy-to-read texts and proper signage of services are critical.

In the future, we would like to further research various topics. One is about signage and the use of accessible icons. Our research found no standard and widely used/approved accessibility signage system on a national or international level. Different countries and organisations use different pictograms and/or symbols/icons to mark their accessibility, but the wider society and the tourism sector are not always familiar with them. Another topic still to address is the general awareness of mental impairments and understanding of the advantages of inclusive tourism.

After reading this guidebook, we further suggest the following online resources for you to obtain additional information:

- in **Estonian**:
 - Ligipääsetav turismiteenus:
<https://www.puhkaeestis.ee/et/turismiprofessionaalile/tootearendus-ja-kvaliteet/ligipaasetav-turismiteenus>
 - EVPIT (Eesti Vaimupuudega Inimeste Tugiliit): <http://vaimukad.ee/>
 - Ligipääsetavuse rakkerühma tööst ja koostatud raportid:
<https://riigikantselei.ee/ligipaasetavus>
 - Eesti Puuetega Inimeste Koja tegevused ja avaldatud materjalid:
<https://www.epikoda.ee/>
 - Tallinna ligipääsetavuse infosüsteem: <https://lips.tallinn.ee/>
 - MTÜ Vaimupuu: www.vaimupuu.ee

- in **Latvian**:
 - Latvijas cilvēku ar īpašām vajadzībām sadarbības organizācija SUSTENTO: <https://www.sustento.lv/>
 - Viegļās valodas aģentūra <https://www.vieglavaloda.lv/lv/>
 - Kurzeme Visiem:
<https://kurzemevisiem.lv/noderigi/kas-ir-grt-un-cita-noderiga-informacija/>
 - Vadlīnijas tūrisma infrastruktūras, produktu un pakalpojumu pielāgošanai cilvēkiem ar īpašām vajadzībām:
<https://www.kurzemesregions.lv/pieejamas-vadlinijas-turisma-infrastrukturas-produktu-un-pakalpojumu-pielagosanai-cilvekiem-ar-ipasam-vajadzibam/>
 - Vadlīnijas “Uz klientu vērsts universālais dizains tūrismā”:
 - http://www.videspieejamiba.lv/lat/universalais_dizains/?doc=83
 - http://www.videspieejamiba.lv/lat/universalais_dizains/?doc=82
 - http://www.videspieejamiba.lv/lat/universalais_dizains/?doc=81
 - http://www.videspieejamiba.lv/lat/universalais_dizains/?doc=80
 - http://www.videspieejamiba.lv/lat/universalais_dizains/?doc=77

- in **Dutch**:
 - Museum Open U, Toegankelijk museum:
<https://demos.be/sites/default/files/museum-open-u-lcm-2017.pdf>
 - Iedereen verdient vakantie:
<https://www.iedereenverdientvakantie.be/nl/over-ons>
 - Onze Nieuwe Toekomst: <https://www.ont.be/?cn-reloaded=1>
 - Konekt, maak de wereld inclusief:
<https://konekt.be/nl/maak-de-wereld-inclusief>

- in **English**:
 - AsIAM.IE – Autism-Friendly Accreditation:
<https://asiam.ie/training-awards/training-autism-friendly-accreditation/>
 - The AZURE Project – Connecting through art, <https://imma.ie/learn-engage/families-community/dementia-inclusive/about-azure/>
 - COME-IN! Project –
http://interreg-central.eu/Content.Node/COME-IN.html#About_COME-IN!

This guidebook includes also a self-assessment tool which is presented in the following pages. This tool is helpful to all service providers who have thought about accessibility but have not had an idea how to start the development of their services. Reading the guidebook and using a self-assessment tool could be an excellent step towards more inclusive services and society!

Addendum:

Self-assessment tool

I. What is the self-assessment tool?

This tool takes on the form of a questionnaire which not only acts as a self-assessment tool but also as a guideline to help you and your tourism service(s) or attraction(s) to realise and address possible issues that act as barriers to accessibility for people with mental impairment at your tourism organisation, be it attractions such as museums, or accommodation, etc.

II. What the self-assessment tool is not

This tool is not a critique of the current products and services on offer. It is for the personal use of the tourism organisation. It does not force the user to improve all aspects of accessibility or guarantee universal accessibility. It rather provides guidelines which will aid in the pursuit of becoming more accessible.

III. How do I use the tool?

The self-assessment tool takes a step-by-step approach, examining various accessibility factors inside and outside your organisation. This includes physical structural aspects (physical accessibility, use of media, etc.), as well as intangible structural elements, such as service provision and training, as well as service design. The tool appears in the form of a questionnaire which you can use to evaluate the current accessibility. The following steps can be taken:

- Step 1:** Read the various statements, think about the extent to which it applies to your organisation and then indicate a rating.
- Step 2:** After rating each section, examine your ratings. If certain aspects received a lower rating or no efforts had been indicated yet, these will be your key focus areas.
- Step 3:** Analyse each of the above and consider whether it would be possible for you to apply these and to what extent. Consider various aspects, such as structural limitations, funding barriers, and human resources, and then decide which aspects would be most essential and practical for you to put your efforts towards.
- Step 4:** After selecting the possible aspects to be adapted, consult the accessibility textbook for guidelines on how these aspects could be improved.
- Step 5:** Apply all changes or solutions and re-assess using this tool.

IV. Getting started

During a touristic visit, the visitor or potential visitor goes through various stages (see Figure A). **Firstly**, they will probably seek information before their visit, also called the information acquisition stage. **Secondly**, they might need to communicate with the organisation beforehand, which we will refer to as pre-visit communications. **Thirdly**, it is crucial for staff to be well trained to communicate appropriately and at required levels. **Fourthly**, one needs to examine the visitor experience and accessibility management. This includes services and physical and structural aspects. **Lastly**, there needs to be some form of collaboration between various partners toward more accessible organisations. At a point, a distinction will be made between attractions and accommodation. On the next page, the first section will start. At each section, please read any possible instructions that might have been indicated per section.

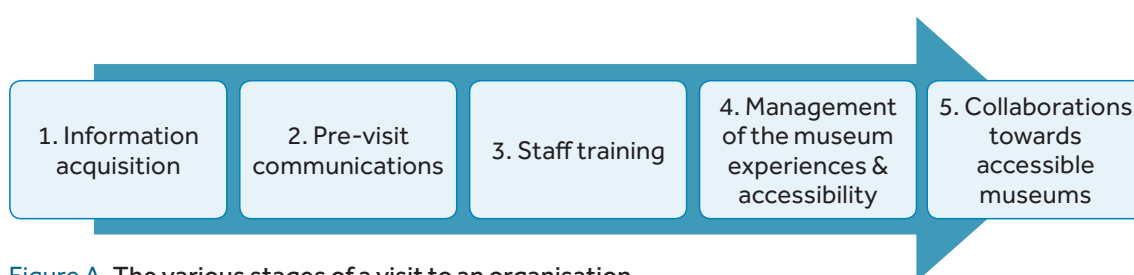


Figure A. The various stages of a visit to an organisation

Section A: Information acquisition

This stage is one of the most vital phases as it plays a crucial role in whether potential visitors decide to visit or stay at your organisation. An access statement is vital for people with mental impairment or their families and caretakers to determine if the visit is possible. The access statements should be marketed well and be easily accessible.

Yes No

1. Does your organisation have an access statement?

If you answered no, it is highly recommended that you develop such an access statement and place it on a dedicated accessibility page on your website. If you do have a form of access statement, please rate the current state of your access statement using the scales below. It is recommended to have these aspects completely applied or present. The below scales can also guide you through creating such an access statement.

Further examples of access statements can be found at these links:

- <https://www.accessibletourism.org/?i=enat.en.news.1074>
- Access Statement | Pantou and <https://www.amth.gr/en/visit/accessibility>

STATEMENTS REGARDING ORGANISATION ACCESS

	Not at all applied or present	Applied/ present to a great extent	Completely applied/ present
<p>a. The route to the organisation is clearly illustrated (map) and explained (in text). <i>The families or caretakers of people with mental impairment often assess access routes beforehand to determine which forms of transport might be needed.</i></p>	1	2	3
<p>b. Special parking lots are indicated (This can include parking for people in wheelchairs or parking for a bus transporting a group of people). <i>In many instances, unique forms of parking are required for vehicles that might take up more space for people with a physical impairment to embark and disembark. Also, parking closer to the entrance is better.</i></p>	1	2	3
<p>c. Available superstructures are indicated for people with mental impairment (for instance, separate quiet entrances, lifts) <i>Many people with mental impairment may also have physical impairment, making such physical accessibility important.</i></p>	1	2	3
<p>d. There is a clear indication of times when the organisation might be quieter. <i>People with mental impairment often do better in environments without too much noise and movement as it can create stress. If there are specific times during the day when it might be quieter, it is important to indicate this.</i></p>	1	2	3
<p>e. The availability of specialised facilities or spaces is indicated. <i>In some cases, people with mental impairment require specialised facilities, such as accessible toilets, quiet rooms or eating areas to relax when the surrounding stimuli become too much for them.</i></p>	1	2	3
<p>f. An indication of the interactive experience the organisation has on offer. <i>Visitors with mental impairment and their caretakers prefer to examine, evaluate and fully understand a specific experience they may gain before deciding if it will be something they will enjoy or be able to handle.</i></p>	1	2	3
<p>g. There needs to be sufficient contact information and whom visitors can contact for what. <i>They need to know whom to contact in specific situations and what exactly they can inquire with these people about in case they have any specialised forms of questions.</i></p>	1	2	3
<p>h. Provide forms of media to make it clear what the visitor can expect during the visit (from prior to arrival to the point of departure). <i>Before visiting, people with mental impairment and their caretakers mostly want to know exactly what will happen during their visit. They need to know how to reach the organisation, what the parking and entrance are like, the experiences they might have, as well as how the experience will be rounded off. Through pictograms, videos, images etc., this can be explained in detail.</i></p>	1	2	3
<p>i. Updated, accurate information is shared regularly. <i>If anything changes at the organisation, it should be communicated on the website as soon as possible because the expectations of the potential visitors might not be met when they arrive and may be different from what they had anticipated.</i></p>	1	2	3

Section B: Pre-visit communications

When potential visitors eventually decide to visit your organisation, communication needs to take place. There needs to be coordination between the organisation and the caregiver or parents of the person with mental impairment to determine the specific requirements of the organisation and to communicate further what the organisation can do on its part to facilitate the visit. It is best if the organisation develops some form of a questionnaire that the potential visitors can either complete and send back or questions that the organisation could ask over the phone. From the questionnaire, the organisation can determine the course of action to take to ensure an optimal visit. It can also provide the best times for specific visits, as well as the most critical persons' contact information.

Yes

No

1. Does your organisation have a pre-visit questionnaire?

If 'no', it is highly recommended to develop such a questionnaire and make it readily available. If you already have such a form, ensure that it collects the correct information from potential visitors by checking to see if you ask the following questions in the scales below.

PRE-VISIT QUESTIONS

	Not at all applied or present	Applied/present to a great extent	Completely applied/present
a. Do you require a staff member to be present who has been specially trained regarding mental impairments – someone who is aware of how to communicate appropriately? Are they aware of the appropriate questions to ask visitors to help ensure a pleasant visit?	1	2	3
b. What level of mental impairment (severity) does the visitor have? (e.g. low or no specific accessibility needs; persons with a variety of needs; persons with specific needs; segment with higher levels of specific accessibility needs).	1	2	3
c. To what extent can the person read, speak and hear? (to see what kind of adjustments could be made or to determine if the requirements are already in place).	1	2	3
d. What is the age of the visitor? (is the person a child, adult or elderly person, for instance).	1	2	3
e. What date(s) and at which time(s) do you prefer to visit/stay?	1	2	3
f. Would you prefer a parking lot to be reserved closer to the organisation's entrance?	1	2	3
g. Are there any specific forms of stimuli that we can adjust for you? We can adjust the lighting, the volume of music, temperature, etc. – (all possible controllable aspects listed). Is there anything else we could try to do which might not be listed?	1	2	3
h. Does the person also have any physical impairment that you would like to make us aware of or for us to make provisions for?	1	2	3
i. Does the person have previous visit experiences and if so, did they notice anything that could be improved for their next visit?	1	2	3
j. Are there any questions or requirements not listed in the questionnaire?	1	2	3

Section C: Staff training

When attempting to become more accessible, especially for people with mental impairment, the staff members must receive some form of training to better communicate and, for instance, understand body language, ask whether assistance is needed and apply appropriate verbal communication. Proper communication should be used before, during and after a visit/stay.

Yes No

1. Have the staff at your organisation (some or all) received some form of training to equip them with the knowledge to communicate with and help people with mental impairment?

If your staff have not yet received training, it is highly recommended that they do receive such training. If they did receive training, do they adhere to or apply the following in the scales below?

	Not at all applied or present	Applied/present to a great extent	Completely applied/present
STAFF TRAINING REQUIREMENTS/SUGGESTIONS			
General communication between staff and visitors			
a. From the front desk to the cleaning staff the personnel received some forms of training. <i>(A cleaning person might be trained on how to greet a person with mental impairment and how to quietly inform other staff or persons that additional assistance might be needed).</i>	1	2	3
b. Staff are aware that they should always be warm and welcoming <i>(a simple smile decreases possible anxiety).</i>	1	2	3
c. Staff members can speak/communicate clearly in the local language(s).	1	2	3
d. The staff know not to talk down to visitors (like speaking to babies). <i>(Ordinary language with simplified words should rather be used).</i>	1	2	3
e. The staff know how to be understanding <i>(some people with mental impairment might be louder than others. Try to be understanding and do not shame the parents or caretakers).</i>	1	2	3
Services and communication before a visit/stay commences			
f. The staff should be aware of the additional information that they might need to ask from caretakers <i>(see Section B).</i>	1	2	3
g. The reception staff should be prepared for the arrival of people with mental impairment – they should be able to call the correct staff members or recommend a waiting area which could be quiet and/or have enough lighting.	1	2	3
h. The staff should properly brief visitors regarding what they might experience during their visit, as well as activities, times and special facilities.	1	2	3
i. The staff should not let visitors wait too long before moving on to the rest of the organisation <i>(some people with mental impairment can lose interest quite quickly).</i>	1	2	3

Staff services and communication during the visit

j. The staff is always available to answer questions or take requests from caretakers.	1	2	3
k. The staff are trained continuously to be aware of what is taking place around them and to identify situations where assistance might be needed quickly.	1	2	3
l. Some staff members need to be good storytellers (<i>this facilitates a more rewarding visitor experience</i>).	1	2	3
m. The staff should try not to be too strict – always include some stories or jokes in communication.	1	2	3
n. The staff should always communicate positively (<i>for example, if some history was terrible, instead communicate the good that might have come from it</i>).	1	2	3
o. The staff should be aware of context-blindness (<i>Not everyone can link objects and a theme. As sound might, for instance, not be enough to create understanding. If staff need to create context, try to tell a story in different ways/manners until it seems like the visitors are happy</i>).	1	2	3

Staff services and communication at the end of the visit

p. Visitors have the opportunity to create their souvenir(s). (<i>People with mental impairment are eager to take part in different activities like drawing or other types of handicraft which offers the possibility to use different senses and they appreciate being able to take such things home</i>)	1	2	3
q. There is a small shop that sells special and affordable souvenirs of the organisation (<i>small usable items to buy or give free of charge to keep as a memorable item, or materials to share with friends, which might convince them also to visit the organisation or to revisit</i>).	1	2	3
r. There is a specially designed photo booth (or stand) with different decorations (<i>place-specific photos are good items to remember the visit by and share experiences</i>).	1	2	3
s. Visitors can give direct feedback via fun and interactive mediums (<i>for example, let them choose an emoticon to express their feelings at the end of the visit or draw a picture of their emotions</i>).	1	2	3
t. Visitors can share their emotions and feedback with the staff .	1	2	3
u. How does the organisation say “Goodbye” and “Welcome back”? (Is it done personally by the staff or via different mediums or signs? Is it in easy-to-read text, clear and attractive style?)	1	2	3

Staff services and communication regarding feedback and communication after the visit

v. The staff send out an evaluative questionnaire to determine the visitor experience in terms of accessibility, services and overall satisfaction. From the feedback, the organisation will be able to amend and upgrade its services.	1	2	3
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Section D: Management of organisation visit and accessibility

The following statements, separated into various categories, can assist your organisation in determining which of the current experiences and accessibility are managed and serve as a guide in improving the management practices.

STATEMENTS REGARDING THE MANAGEMENT AND ACCESSIBILITY OF THE VISIT	Not at all applied or present	Applied/ present to a great extent	Completely applied/ present
Management of organisation tour			
a. There is enough time for people with mental impairment to relax during organisation tours (<i>keep in mind, a 2-hour visit might result in 30 minutes of attention, so enable the visitors to have relaxing and entertaining moments</i>).	1	2	3
b. There needs to be much freedom of movement in the organisation (<i>the visitors might get tired and frustrated if their movement is controlled for a prolonged time</i>).	1	2	3
c. During the break, there is time allowed for visitors to play (<i>they like to play games on tablets or simply look at postcards</i>).	1	2	3
d. The organisation allows visitors to decide whether there are particular areas that visitors would like to see and can separate such areas to create a quiet space during the visit.	1	2	3
e. The organisation can provide interesting items/exhibits next to or near one another as visitors in general do not like to cover big distances to see things.	1	2	3
Making the visit/stay experience fun, interactive and easy to understand			
f. Elements of fun and interaction are included in all experiences (<i>people with mental impairment will not pay attention for long or adapt if their experience is not entertaining – they lose interest quickly</i>).	1	2	3
g. Where possible, simple text is used . Less text in an easy-to-read font is used throughout the premises.	1	2	3
h. Pictograms/icons/symbols are used overall to communicate ideas.	1	2	3
i. Computers and/or tablets can be used during breaks.	1	2	3
j. Where there might be exhibitions of any sort which require sound, earphones are provided (<i>they prefer to hear sounds directly instead of sound echoing from the environment</i>).	1	2	3
k. Some forms of memorabilia available can be taken home (<i>something like a photo booth or stand with a take-home photo already makes the visit more enjoyable, for instance</i>).	1	2	3
l. Moments of inspiration, fun workshops or something active are supplied (<i>visitors will probably not enjoy anything too scientific</i>).	1	2	3
m. Items visitors are not allowed to touch are replicated and tangible (through 3D scanning and printing) . (<i>They want to be able to touch and feel exciting things they see during their visit</i>).	1	2	3

n. Visits are made more interactive through simulations, 3D experiences, multi-sensory experiences, etc.	1	2	3
o. The most exciting parts of exhibitions or areas in a building have been identified and can be exploited when people with mental impairment visit.	1	2	3
p. The organisation provides a form of roadmap through the area with fun, colourful identifiers in different areas, e.g., coloured tiles and stones.	1	2	3
q. You can control various forms of stimuli , such as the brightness of rooms, noise levels, etc.	1	2	3

Organisation facilities and possible future facilities (mostly applicable to attractions, i.e. museums)

r. The organisation has a special entrance room where visitors can hang coats and place lunchboxes – they can also be briefed regarding their visit to this location before a tour begins.	1	2	3
s. A quiet room/space is provided where visitors can sit and take a break – this can also be separate from a cafeteria – food and drinks can be provided there.	1	2	3
t. If there is no quiet room, the organisation at least provides a cafeteria area in proximity to the areas being explored.	1	2	3

Increasing organisation accessibility

u. Financial attractiveness: There are special reduced rates or free access for persons with disability and/or their caretakers.	1	2	3
v. Accessible communication: There is no difficulty in locating staff members, a specific room or various forms of information.	1	2	3
w. Mobility issues have been taken care of: Ramps for wheelchairs, for instance.	1	2	3
x. Sensory issues have been taken care of: Steps are marked with contrast colours for people with visual impairment; there are continuous handrails installed at steps, stairs, etc.	1	2	3
y. Special and adjusted furniture designs: e.g. the reception or work desks are low enough for persons in wheelchairs to see over the desks clearly.	1	2	3
z. Clear and large enough signage of important facilities, such as exits and toilets, is provided.	1	2	3

Creation of an appropriate atmosphere

aa. Good and relaxing music is played and can be altered at a moment's notice.	1	2	3
bb. A variety of colours are used, coupled with bright lighting (<i>but an adjustable one</i>).	1	2	3
cc. A cosy and fun experience is provided during the visit through proper services and the control of the atmosphere.	1	2	3
dd. Good acoustics are ensured (<i>through the use of curtains and soft fabrics that absorb excessive noise</i>).	1	2	3

Section E:

Collaborations towards making the organisation more accessible

For your organisation or any other organisation to become accessible, collaborations can significantly help. Different types of attractions, such as museums or accommodations can meet up and work together to share insight regarding the best courses of action to become more accessible. If a museum, for instance, introduces enhanced services at reception and they see that the response is positive and creates better experiences, they should be able to share their know-how with other museums that could take similar approaches. Does your organisation apply the following?

STATEMENTS REGARDING COLLABORATIONS	Not at all applied or present	Applied/ present to a great extent	Completely applied/ present
a. The organisation has a network of understanding and knowledge exchange with various other organisations, such as museums, or organisations, such as accommodations, where the best and worst practices can be discussed and ideas exchanged.	1	2	3
b. The organisation works with special needs groups (people with mental impairment and their caregivers) through co-creation and knowledge exchange to enhance the products and services offered.	1	2	3
c. Being familiar with state regulations, laws and other leading topic-related organisations in Europe on a national level, e.g. EU Accessibility Act, European Network of Accessible Tourism, etc.	1	2	3
d. State legislation regarding accessibility are adhered to in your organisation.	1	2	3

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Chapter 1

Figure 1.1	WHO (2001). International Classification of Functioning, Disability and Health
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Chapter 2

Figure 2.1	Design Council, 2019
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Figure 2.3	Tafara Chibebe, Nicolas Saliba, Jeroen Schoonheim
Figure 2.4	Tafara Chibebe, Nicolas Saliba, Jeroen Schoonheim
Figure 2.5	Maarja Aug, Katre Karu, Agris Kunman, Carmen Palmiste, Mari-Liis Tilling
Figure 2.6	Vidar Nordli Mathisen in Unsplash
Figure 2.7	Stefan Spassov (Kiasma Museum in Finland) in Unsplash

Chapter 3

Figures 3.2	Pictures by Leen Van Aken
Figure 3.3	Picture by Leen Van Aken
Figures 3.4	Pictures by Leen Van Aken
Figures 3.15	Picture by Julie Amy
Figures 3.21	Picture by Britt Pellens

Chapter 4

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- Figure 4.6_1 Image retrieved from <https://accessibleicon.org/>
- Figure 4.7 Image retrieved from <https://accessibility.day/>
- Figure 4.8 Image retrieved from <https://www.bhs.org.au/media/dmfgmvr5/alzheimers-australia-paper32cognitiveimpairmentsymbol.pdf>
- Figure 4.9 Image retrieved from <https://www.accessable.co.uk/access-symbols>
- Figure 4.10 Image retrieved from <https://www.accessable.co.uk/access-symbols>
- Figure A Created by authors from research results.

Appendixes






Appendix 1. Customer journey map worksheet

Appendix 2. Persona worksheet

Appendix 3. Observation checklist created by Space & Service Design students of
Thomas More

Appendix 4. Business model canvas

Customer journey map worksheet

My journey	Before visit / experience		During visit		After visit
Activities (What I did?)					
People, places, object, sources, channels (where, when, with whom, what, etc.)					
EMOTIONS (describe the results of action)					
					
					
					
					
Observation and suggestions	What needs to do?				

VISITOR PROFILE

photo

Name

Age

Role/Occupation

Marital status

Place of residence

Description /Short life story

Quote or a life moto

What makes her/him happy

Hobbies

Hopes and dreams

Opportunities

What makes her/him sad

Fears

Challenges

What makes her/him angry

Other important information

OBSERVATIONS CHECKLIST

Before



- Dispersion of the group on their way to the entrance
- Something has been asked just to get to the building



- Use of the sink
- The toilets are separated by gender
- The toilet has a intuitive design. Problems? Whitch ones:



- Widespread nervousness while waiting in line
- They have sat in the waiting time (If this space was provided)
- Someone of the group interact with a worker
- They have taken some map of the museum
- They use the map for other purposes. Specify which:



- They leave their belongings at the locker
- The group takes responsibility for the key (code) of the locker
- They store mobile devices at the locker



- All was right with the delivery of documentation
- The same information is provided to the coach as well as to the rest of the grupop
- The group is identified with some sort of sticker

During



- No one gets lost throughout the exhibition
- No one breaks any museum rule. Specify which one:
- The stairs are used without difficulty
- The white room is used. By who? when? fot how long?
- Interactive points are used successfully. Why?
- They use the map orient themselves
- They take time to rest. How long?
- There was someone who wanted to go to the bathroom during the journey
- They have free time during the journey. For what do they use it?

After



- They bought something in the museum shop. What?

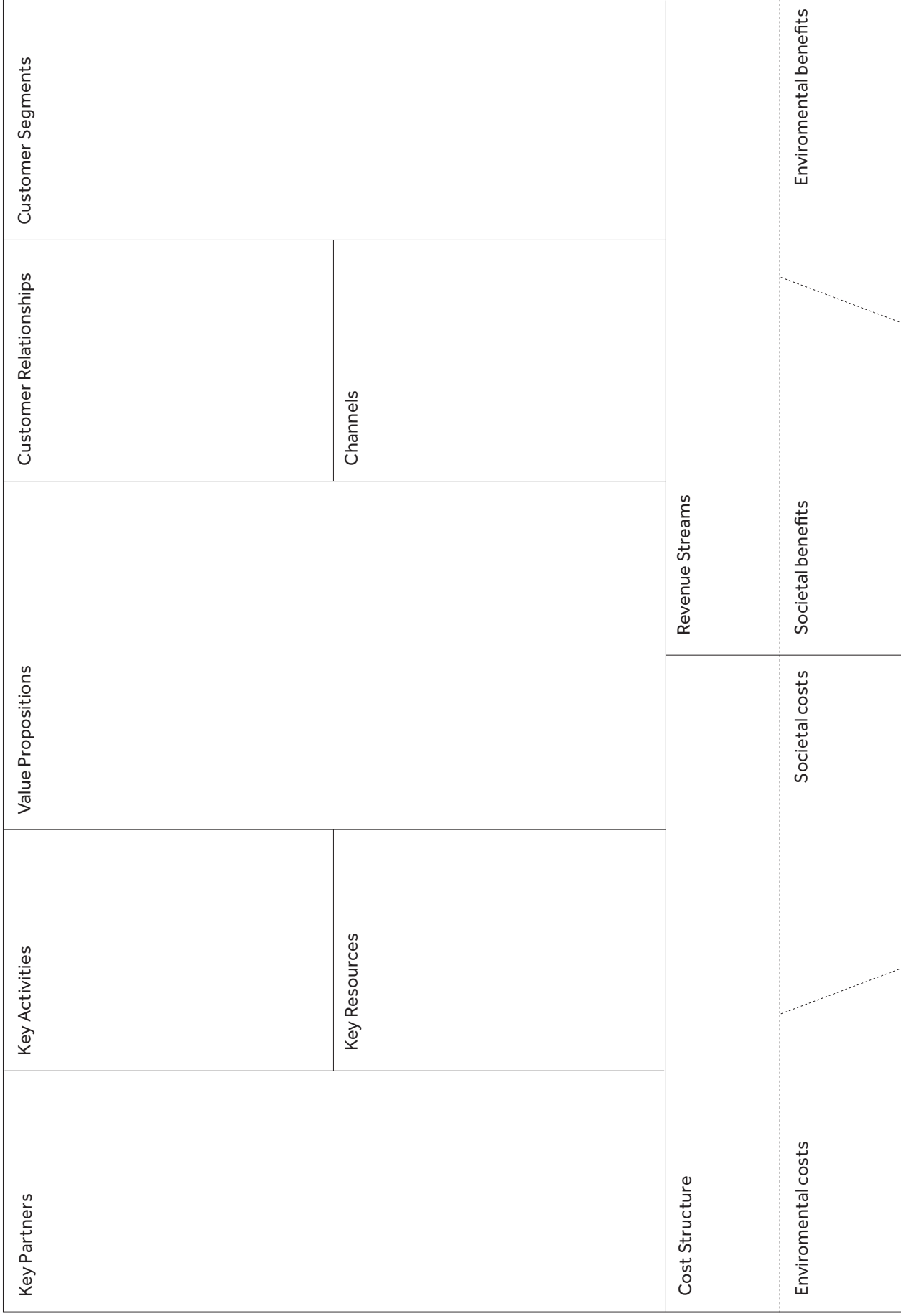


- They spent time in the museum shop. How long?
- They have gone to the cafeteria. What did they do?



- Everyone has their belongings before they leave
- Everyone knew where the exit was

BUSINESS MODEL CANVAS



Adapted from businessmodelgeneration.com by Business Models INC.