

HEARING IMPAIRED PARTICIPANTS IN TOURISM

Project "From Accessible Tourism to Accessible Hospitality"

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This thesis analyses the conditions in tourism for the hearing impaired travellers. Recommendations for enhancing service value and product development are suggested according to the findings from the research part.

The scope of this study is limited to the hearing impaired travellers from or with experience in travelling in the EU region. For purposes of this thesis, product development is delimited by the research and ideation stages of experience design and does not attempt to propose a finalized product.

The analysis of the existing studies, legal amendments and standards provides necessary background information and creates the framework on which the research is constructed. Qualitative research methodology is used. The traveller interviews grant more insight into the hearing impaired customers' experiences and perceptions of travel and tourism service and experience offering, while the mystery shopping conducted mainly in Donauwörth, Germany, maps the accessibility of the service and experience offering.

The main results of the research show that the hearing impaired participants in tourism are at present not willing to buy already designed experience products. There are various reasons for this phenomenon. Firstly, the providers often misunderstand or do not recognize the needs and requirements of their hearing impaired clients. Secondly, the communication channels of the service and experience providers are not developed appropriately in order to support an effective information exchange with this target group. As a solution, the most important adjustments are suggested and examples of tourism products designed specifically for the public sector are introduced.

Key words accessibility, disabilities, hearing loss, hearing impaired travellers, experience design

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1 INTRODUCTION

The decision to map the situation of the hearing impaired travellers in tourism formed during the first year of my tourism studies, as it was a logical combination of my personal interests – my passion for travel and tourism and my health condition which caused a medium hearing loss. As a hearing aid user, I have to develop strategies to cope with difficulties during my travels. As I have observed, this has led to compromised experiences, which include avoiding paths next to busy roads, restaurants during noisy lunch times and guided tours altogether. The outdoor acoustics and the background noise often overwhelm my hearing aids, rendering my hearing useless as a communication channel. The tendency to plan my own trips individually, without any need to interact with a third party, became obvious. All the compromises which had to be taken due to my health condition sparked my interest in the alternatives offered; if there were travel situations I had to avoid, there could be some specifically designed for travellers with a similar condition to mine. The statistics are, after all, reporting an increasing number of people with a hearing impairment. And as my studies advanced, I learnt that the tourism industry had already chosen a term for the phenomena I was observing – accessibility.

With all the demographic changes in society, especially in regard to the aging population, accessibility and disabilities have been a focus of numerous tourism studies (Darcy & Pegg 2011; Shaw & Cole 2004; Small & Darcy 2010; Stevens et al. 2011). The results of these papers, together with the consequent shifts in regulations they bring, can be observed on a daily basis. The barrier-free access for the wheelchair-users is promoted, designated parking spaces designed and information on allergens on the product packaging stated. This development suggests that the producers and service providers are already aware of their customers with specific health conditions and are willing to respond to their special needs.

Since people with disabilities are not a homogenous group, the approaches to the wide range of impairments necessarily differ. For instance, the accessibility standards for the mobility impaired rely mainly on the technical descriptions of spaces in the facilities, like the width or height (DEHOGA 2015, 4–6), while the

facilities for the sensory impaired should adjust their equipment or furnishing accordingly. The requirements for an effective interaction and communication with the sensory impaired guests differ greatly from the communication with the mobility impaired person; they are dependent on the specific type of impairment of the visitor.

This thesis focuses on a subcategory of sensory impairments, hearing disabilities. The geographical delimitation of this study to the European Union provides the necessary pivotal point for focusing on the most relevant set of laws and regulations.

The research question was designed to identify those features of an experience product or service which are attractive for the hearing impaired and deaf. The analysis of the contemporary research papers and regulations helped creating the research framework. The research provided insight into the actual travel needs and requirements of the hearing impaired, which was gained by the semi-structured theme interviews. To map the existing market offer, accessibility of the existing tourist facilities and attractions was examined by the mystery shopping research method.

The role of the first commissioner of this thesis, the project From Accessible Tourism to Accessible Hospitality focuses on the current theoretical background and research on accessibility in tourism. The findings of the research should provide guidance for entrepreneurs for designing more attractive experience products and services for the hearing impaired participants in tourism. This experience development part was commissioned by the second commissioner Kaisus Lapland.

The key results address the above mentioned objectives and utilizing the described research methods, the most common issues in regard to the target group are identified. Furthermore, suggestions for experience products adaptable for various stakeholders are developed.

2 PERCEPTIONS OF DISABILITY

2.1 Public Recognition of Disability

As mentioned in the introduction, the increasing focus of service providers and entrepreneurs on the issues of accessibility has become visible. It is not rare anymore to spot the accessibility symbol for the mobility impaired on various places, such as the parking lots or means of public transport. Under normal circumstances, public does not pay attention to these changes, but the assumption can be made that a high percentage of people would instantly recognize this symbol (Figure 1) and understand its basic meaning.



Figure 1. International Symbol of Full Accessibility (European Commission 1996, 119)

As the European Commission mentions (1996, 119), in the past, this symbol was used as a general sign for disability. Nevertheless, people with disabilities are not a homogenous group; wheelchair users or patients with a broken leg temporarily using crutches have a different range of needs than a blind or an autistic customer. Consequently, a variety of more accurate accessibility-symbols was introduced (Table 1). However, based on my observations during the research process, these are not as well-known or recognized by the public as the general accessibility symbol.

Table 1. Pictograms of Accessibility (European Commission 1996, 119)

	<p>Accessible to wheelchair user with assistance</p>
	<p>Facilities for ambulant disabled people</p>



Facilities for visually impaired people



Facilities for hearing impaired people



Guide dogs/Hearing dogs welcomed

These pictograms hint at a further classification of disabilities, which is discussed in detail in the following chapters. First of all, it is important to understand what disability is and how it is defined legally.

2.2 Disability and Impairment

The wording of the disability definitions might vary from country to country. The United Nations organisation took steps to create a common ground and unify the stance of the nations by adopting the Convention on the Rights of Persons with Disabilities (2006), where it is specifically declared that the

persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others.

As Eurostat (2016) states, this convention presents the legally binding basic requirement standard for ensuring the human rights of the disabled community. Since the member states of the European Union ratified and signed this document, the convention became the basis for the European Disability Strategy for 2010-2020. What is more, the European Union goes even further and includes the right to integration of the disabled into its Charter of the Fundamental Rights of the EU. (European Commission 2016b; Eurostat 2016.)

From the legal point of view, the case of Chacón Navas laid the foundation for the definition of disability by the European Court of Justice (European

Commission 2009, 16) and its legal differentiation from an illness. To solve this case, the court relied on the medical, physical concept of disability, concluding that

the cause of disadvantage (or the “limitation”) is an “impairment” which an individual has, and it is the “impairment” which hinders participation in professional life. Therefore, the problem lies in the individual, and not in the reaction of society to the impairment or the organisation of society. (European Commission 2009, 16.)

Understanding disability from this point of view, as Small and Darcy (2011, 3–4) pointed out, leads to placing the fault on a disabled individual for not meeting the norms and standards of the society. Hence, in accordance with this concept, if a blind person is not able to read the room numbers in a hotel, the situation occurred due to the person’s insufficiency, defectiveness.

In contrast to this stands the social concept of disability, which views the above mentioned situation as a failure of the hotel to create a suitable environment for this particular guest, for instance providing the room number plates in Braille. Small and Darcy (2011, 3) argue that this is the way how the environment and society fabricate even more difficulties and inability to function than a person’s impairment actually poses. The European Commission (2009, 16) accentuates that the European Court of Justice, in its decision in Chacón Navas case, did not take into account other concepts to defining disability, such as the social model.

According to Small and Darcy (2011, 3), the relevance of the social model lies in the fact that it places the decisions about the disability agenda on the national governments’ programmes and processes the topic on the level of social and economic institutions. What is more, the social approach to disability differentiates between the terms impairment, which is seen as a part of an individual’s embodiment and disability, which is the social disadvantage produced by the disabling social environment and attitudes (Small & Darcy 2011, 3).

It can be argued that both the medical as well as the social concept are based on placing the blame either on an individual, for his or her inability to adjust to the norms of the society he or she lives in, or on the society for not being able to adjust and respect the diverse needs of the individuals who form the society and for imposing its norms onto every single person, thus suppressing their individuality.

Shakespeare and Watson (2001, according to Darcy & Small 2011, 3–4) point out this polarisation and suggest that a concept from the point of view of an embodied ontology might provide the integration of the medical and social aspects and hence offer a more complex and accurate definition of disability. For the purposes of this study, an approach which includes both medical and social aspects without blaming any party would be beneficial.

2.3 Concepts to Understanding Disability

2.3.1 Four Factors of Accessibility

To assist the entrepreneurs in understanding and supporting the needs of their disabled customers, the researchers (Small & Darcy 2011, 4–8) introduced four factors of accessibility, as shown in the figure below.

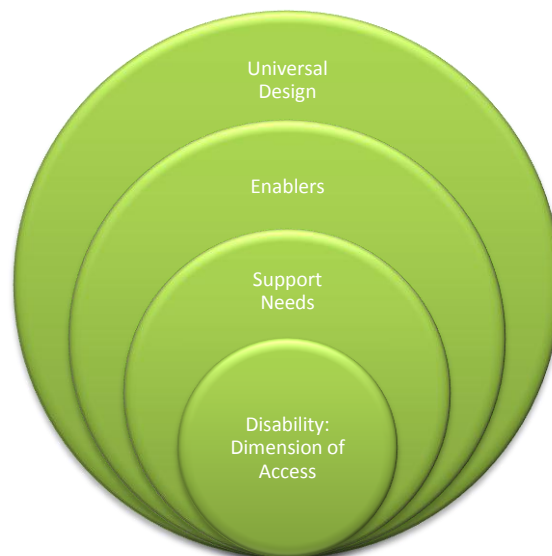


Figure 2. Concepts for an Understanding of Disability (Small & Darcy 2011, 4)

2.3.2 Dimensions of Access

The core of comprehending a disabled person's access needs lies in understanding the intricacies of his/her specific case. Oliva and Simonsen (2000, 79) discuss the situation concerning the hearing impaired and deaf in the United States. They claim about ten percent of the citizens suffer from some condition of hearing loss, which means this group has to participate in the everyday activities in a different manner than the rest of the population. Furthermore, they point out one of the practical implications of this condition, namely that those ten percent of the United States' citizens have a disability which is not always recognizable at first sight.

Nevertheless, deafness and the discreet usage of hearing aids are not the only conditions difficult to discern. The European Commission (1996) gives an overview on disabilities and the most typical barriers the disabled people might face while engaging in tourism-related activities. While this categorisation assists the providers in choosing the right approach for meeting the demands of a disabled client, it needs to be highlighted that every person is an individual with a specific and unique set of characteristics; the disabilities might appear in combinations which are in some cases not even partially visible.

Following the United Nations definition of the disabled persons mentioned in previous chapters, the European Commission (1996, 5) classifies the disabilities as seen in Table 2.

Table 2. Classification of Disabilities (European Commission 1996, 5)

Type of Disability	Description
Physical disabilities	Impaired mobility People suffering from these disabilities are using wheelchairs, crutches, sticks, etc.
Sensory disabilities	Impaired or lost sight and/or hearing
Learning disabilities	Intellectual, reading or writing problems e.g. Down's Syndrome
Mental health problems	e.g. depression, mania, phobias or anxiety attacks
Other disabilities	mainly invisible health problems like allergies, diabetes, heart problems or epilepsy

According to Small and Darcy (2011, 5), Darcy (1998) reduced these disability categories into three main dimensions of access: the physical, sensory and communication. A decade later (Darcy 2009, according to Small & Darcy 2011, 5), he differentiated and enhanced them, diversifying the sensory impairments into access dimensions of vision and hearing and communication into cognitive/learning and mental health. Sensitivities, such as allergies, and a category of general accessibility named *other* were added to the list.

The research on disabilities in tourism often focuses on the apparent issues of accessibility for the physically or visually impaired, as seen in the studies of Daniels, Rodgers and Wiggins (2004) or Shaw and Coles (2004). The studies focused on non-visible impairments are less frequent. In their research on perceptions of disabilities, Darcy and Pegg (2011, 474) state that their sample of the research subjects, the hotel managers, had a good understanding of the needs of their physically and visually disabled guests and that to some extent, they recognized the needs of the hearing impaired and deaf visitors. They also proved that this recognition did not occur in the cases of other types of disabilities, for instance the learning or mental illnesses.

It can be therefore argued that the more visible a disability is, the more familiar the business providers are with their disabled clients' needs. In this respect, the hearing impairment and deafness could receive a medium level of recognition from the service providers. However, at this stage, this assumption presents a hypothesis that needs to be addressed in future research.

2.3.3 Support Needs and Enablers

After learning about the type of disability, Small and Darcy (2011, 5) suggest viewing the level of support needs as the next crucial concept. Every person is positioned somewhere in between the continuum independent – very high support needs. The hearing impaired and deaf travellers are frequently independent, in contrast to the very high level of support which requires 24-hour one-on-one assistance.

The access enablers are all factors which change the disabling environments to enabling environments (Swain et al. 2004, according to Small & Darcy 5–6). In the case of the hearing impaired, the enablers could be classified as assistive technology, such as hearing aids/cochlear implants and Telecoil/induction loops and attitudes and behaviour, such as understanding how to effectively communicate and having patience and open-mindedness while interacting. In the case of mobility and visual impairments, environmental and structural enablers, such as accessible transportation, accommodation and toilets are of great importance.

2.3.4 Universal Design

Universal design is a concept promoting the idea of complete accessibility of environments and usability of products for everyone without any compromises. An example of an ideal product or environment is, according to the Center for Universal Design (2008b; Small & Darcy 2011, 6) such a product, which can be used by all people when they are children, adult and of an older age, with or without any health problems or disabilities.

The Center for Universal Design (2008a) formulated seven principles that need to be in the heart of the design, not just its additional feature, if they are to be used by all.

Principles of Universal Design English

- 1. Equitable use**
- 2. Flexibility in use**
- 3. Simple and intuitive use**
- 4. Perceptible Information**
- 5. Tolerance for Error**
- 6. Low Physical Effort**
- 7. Size and Space for Approach and Use**

©1997 The Center for Universal Design, NC State University Raleigh, North Carolina, USA

Figure 3. Principles of Universal Design (The Center for Universal Design 2008a)

Small and Darcy (2011, 6) discuss these principles and point out that universal design must be able to serve people throughout their whole lifetimes.

2.4 Constraints to Participation in Tourism and Leisure

Depending on the type of disability, people face a variety of activity constraints. Yau, McKercher and Packer (2004, 950–957) emphasize that from the point of view of a disabled person, tourism entails higher levels of risk than participation in activities within a well-known environment. In their study, the researchers analysed the process of a disabled person becoming travel active. In this process, five experience stages, as well as the most common constraints that the disabled person had to face, were identified (Table 3).

Table 3. Five Stages to Becoming Travel-active (Yau, McKercher & Packer 2004, 950–957)

Phase	Description	Constraints
Personal	acceptance of disability reintegration into the closest social unit	focus is on re-learning the daily tasks, health condition often does not support travelling for leisure
Reconnection	re-establishing of the disabled individual in the community life exploration for future travelling	social attitudes to disabilities: over-protective family members, condemning and judgmental attitudes, expected to adopt the position of a helpless victim
Travel Analysis	Pro-active information search, tourism activities are not abstract anymore -> zero moment of truth	lack of specialist travel companies, lack/inaccuracy of information about the services at the destination
Physical Journey	Compensation and Compromise	lack of carers, inconvenience of transportation facilities, limited choices for accommodation, compromising/non-participation in the on-site of activities, additional cost for accessible accommodation
Experimentation and Reflection	Different tastes of travelling	mixed feelings especially after the first trip -> might inhibit future participation in tourism

The research of Shaw and Coles (2004, 400–402) confirmed the results of Yau, McKercher and Packer; Shaw and Coles identified the constraints based on the lack of reliable information, caretakers and money, inaccessible or problematic transportation and accommodation and unfriendly people.

Numerous studies (Daniels, Rodgers & Wiggins 2004; Lee, Agarwal & Kim 2012; Small & Darcy 2011) mention Smith's (1987) division of travel barriers that disabled tourists do or might encounter. These barriers are grouped into three main categories. The first, the intrinsic barrier category, is characterised by the lack of knowledge, health-related problems, social ineffectiveness and physical and psychological dependency. The environmental category of barriers includes the attitudinal, architectural, ecological or/and transportation constraints and rules and regulations. The last of Smith's barrier categories is the interactive one, which discusses the skill-challenge incongruities and communication obstacles. A very common example of an interactive barrier which is not limited to the people with disabilities is the language barrier. On the other hand, in their study of the caregivers' participation on leisure travel constraints, Gladwell and Bedini (2004) identified another three constraint categories. These are the physical, social and emotional impediments.

Another widely accepted division (Daniels, Rogers & Wiggins 2005, 921; Crawford & Godbey 1987, according to Lee, Agarwal & Kim, 2012, 570) named the dimensions, where the constraints are most likely to occur. These are interpersonal (social interaction with others), intrapersonal (psychological condition, personality factors, attitudes, religious beliefs, moods) and structural (lack of money, time and/or opportunity).

While the barriers and constraints have an impact on the individual's decision to participate in leisure and tourism activities, there is a variety of other factors that influence a person's attitudes towards travel. One of these is Seligman's concept of learned helplessness (1975, according to Lee, Agarwal & Kim 2012, 572), a psychological phenomenon of giving up and losing confidence after an individual is repeatedly prevented from behaving the way he or she desires to. Even if the conditions change and the people in concern are subsequently

allowed to follow their own desires, they would not do so anymore – they become helpless.

Due to the diverse nature and causes of impairments, one-size-fits-all solutions cannot be applied. The legislation, even if based on equal chances for every segment of the population, does not help the businesses in overcoming the challenges in integrating the segment of the impaired visitors into their operations (Oliva & Simonsen 2000.) In a similar manner, Small and Darcy (2011, 5) claim that the diagnosis and descriptions of an individual's lack of ability do not clarify what needs to be done in order to eliminate the barriers.

In practice, Pegg and Darcy's findings (2011, 472) show that even if the Australian accommodation facilities desire to attract the seniors who might have a combination of impairments, this notion is never accompanied by the idea to extend the marketing strategy to the disabled. Furthermore, the key role of the staff is highlighted by their attitudes and usage of language when offering the rooms. While some front line employees promote the rooms to all disabled and non-disabled clients as overall accessible and equipped with additional features, some down-grade them in front of the clients as the "disabled" rooms, as if the enhanced accessibility was a stigma.

3 IMPLICATIONS OF HEARING IMPAIRMENT

3.1 Medical Aspects of Hearing Loss

3.1.1 Causes of Hearing Loss

Our ability to hear is enabled by the sounds being read by the outer ear and lead through the auditory canal to the ear drum, which perceives the sounds and noises as vibrations. These are further transmitted to the sensory cells of the inner ear, which transforms the vibrations into nerve impulses and sends them into the brain (Phonak 2016a, 3).

Hearing loss can be triggered by a number of causes. Hear-It (2016c) and Phonak (2016b) specify causations such as illnesses (especially infections or tumors), genetic defects, aging, allergies, accidents, frequent subjection to loud environments or even lifestyle choices, such as smoking or alcohol abuse (University of Manchester 2014).

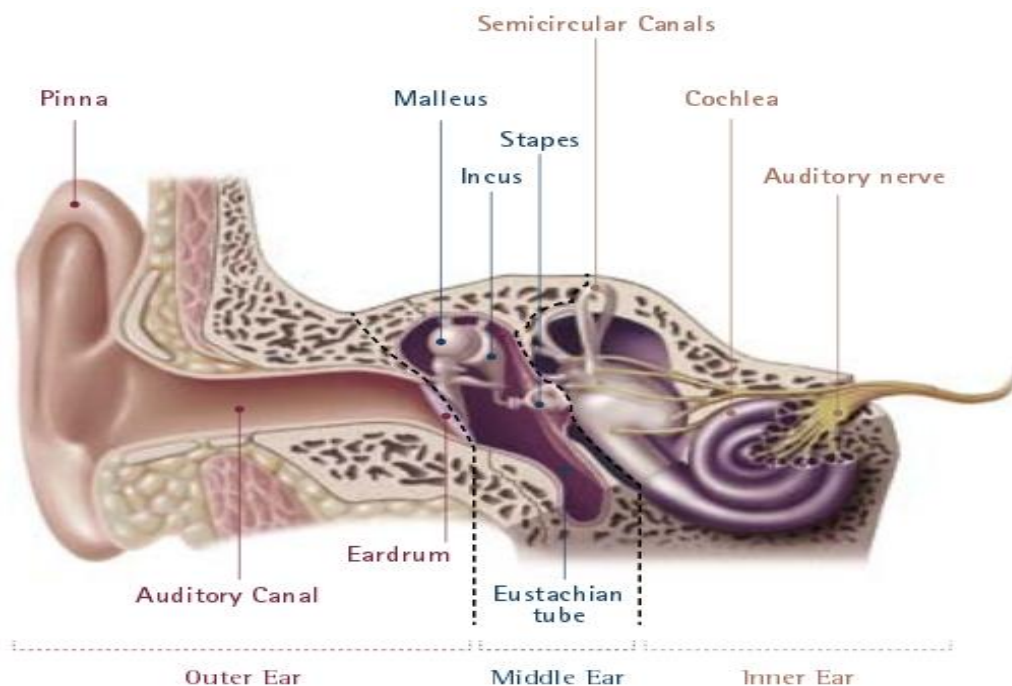


Figure 4. The Structure of the Ear (Phonak 2016a, 3)

The main classifications of the causes of the hearing loss are based on the location where the damage to the ear occurs. Hence, the Hearing Loss Association of America (2016) and Hear-It (2016c) discuss the conductive

hearing loss caused by the damage to the auditory canal, ear drum or middle ear and the sensorineural damage caused to the inner ear and/or the auditory nerve. The mixed damage is a combination conductive and sensorineural condition. Phonak: Life is On (2016b) fills in more details on the specific damage, as seen in Table 4.

Table 4. Classification of the Causes of the Hearing Loss (Phonak: Life is On 2016b; Hearing Loss Association of America 2016; Hear-It 2016c)

Cause	Mixed		
	conductive		sensorineural
Location	outer ear	middle ear	inner ear, nerves
Examples of the damage	wax plugs	inflammation otosclerosis perforations fluid behind the ear drum	ageing noise exposure certain types of medication skull fractures

3.1.2 Hearing Loss Categorisation

From the medical point of view, hearing loss categorisation depends of the hearing thresholds, defined by the loudness (in decibels, dB) and the pitch (in Hertz, Hz). The quietest sound a person can hear is estimated with the help of audiometric devices and consequently, the hearing loss severity is defined (Phonak: Life Is On 2016; Hear-It 2016.) According to the illustrative figure, a person with the threshold of thirty five dB would not be able to hear the fricative consonants (Teaching Pronunciation Skills 2016).

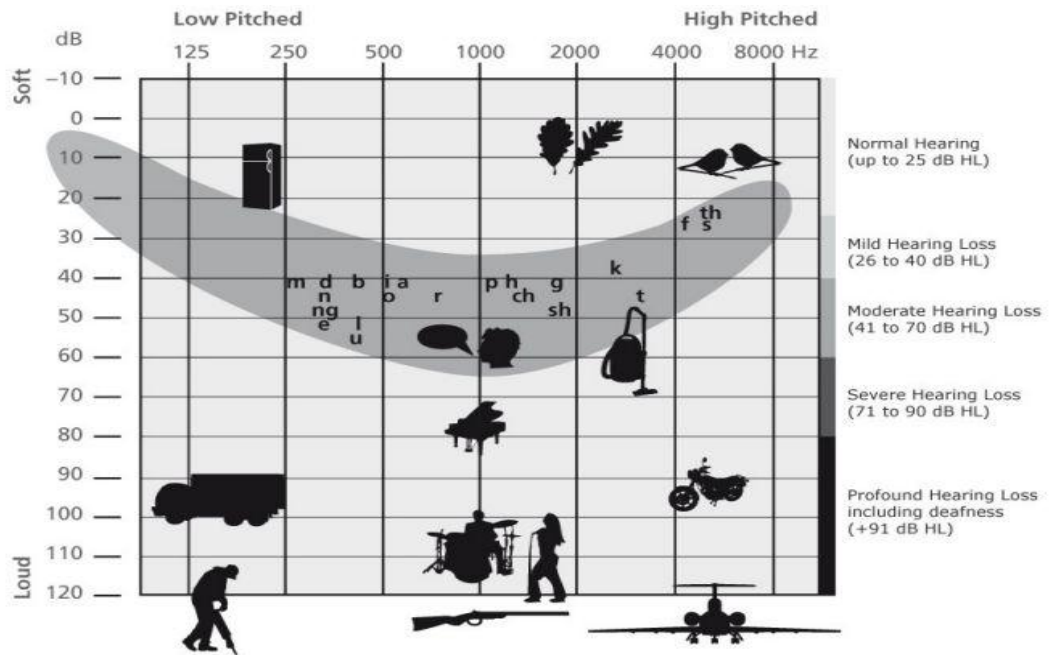


Figure 5. Hearing Loss Classification (Phonak 2016b)

As an example, a person with this threshold would hear a word *-ake* [-eik] in a conversation. A variety of words could have been said, for instance the word ache, fake, sake or shake. This, in general, leads to the development of one or several coping strategies, such as using context to fill in what was said, or lip reading. However, this causes misinterpretations and communication mishaps (Brown 2014), which poses a great impact of the hearing impaired person's inclusion into the society and his or her feelings of belonging (Oliva & Simonsen 2000, 82–83). Consequently, as these barriers shape the individual's everyday life experience and perception of self, they have an impact on the motivation and readiness to travel.

3.2 People with Hearing Impairment as Market Segment

When it comes down to the tourism industry, the Handbook for the Tourism Industry (European Commission 1996, 1) calls the disabled the forgotten group. As mentioned earlier, public institutions, shops and other companies have started to take the accessibility issues into account. The adjustments towards accessibility, especially mobility, concern a bigger group than what the public usually refers to as "the disabled" in the traditional sense of the word. The

twenty years old estimate of the European Commission (1996, 3) talked about approximately 25 per cent of European population.

The statistical data provided by Eurostat (2014) suggest that at the end of the year 2014, 18,5 per cent of the European citizens belonged to the senior population, a segment most influenced by the process of ageing. Adding the 12,8 per cent of the people with a disability between 15–64 (Eurostat 2015), over 30 per cent of the European population face issues connected with mobility and/or accessibility. If the Eurostat (2014) population statistics talks about over a half billion of European citizens, this potential market segment can be estimated to include as many as 152,5 million people.

Nevertheless, in their pilot study of disabilities, Shaw and Coles (2004, 402) point out that due to the diverse health conditions combined with the demographic factors, the “disabled people represent not one market, but a series of different sub-markets”.

Another detail that the entrepreneurs often fail to recognize is that frequently a person with a temporary or a permanent access issue does not travel alone. Accessibility for this person hence means accessibility for everyone who accompanies this individual – and therefore, as the European Commission (1996, 1) stated in its Handbook, access is good for business. It can be therefore argued that the actual scope of this segment in the European population is much higher than thirty per cent.

Hearing impairment statistics is in many cases incomplete and inaccurate (World Health Organisation 2013, 156.) Many hard of hearing persons might try to mask their impairment out of the fear of for example losing their job positions, while others might be in deep denial of their hearing loss or underestimate it as something temporary.

To exclude an erroneous diagnosis, the author of this thesis was diagnosed in three different Euro area countries. However, even if the results were the same and the sensorineural hearing loss diagnosis was established, in two of the

three countries no further actions beside the hearing-aids purchase were suggested. It can be therefore argued that unless the patient him- or herself undertakes steps to be classified as disabled, the record of the nature of the impairment is reported neither for statistical nor for other patient-supportive purposes. Despite these challenges, the World Health Organisation (2013, 156) estimated the hearing loss prevalence in the global population in 2008 to 5,3 per cent.

Coming from the global to the national scale, Koskinen, Sainio and Aromaa (2012, 132) claim in the Health, Disability and Welfare report that twenty per cent of the Finnish population over the age of thirty are suffering from a hearing loss of some level. In the population over the age of seventy-five, this number grows to fifty per cent. Generally speaking, men are more likely to suffer from hearing loss than women.

Hear-It (2016b) provided an overview on the hearing impaired population in Europe. According to their review, the number of people from Germany, England and France who claim to have a hearing loss is about 12,5 per cent. In comparison to this number, another survey carried out in various European countries raises the number of people suffering from a hearing impairment severe enough to affect their everyday lives to 16 per cent.

It is expected that the percentage of the hearing-impaired will grow due to ageing (Hear-It 2016b, World Health Organisation 2013, 157.) In addition to the expected impacts of ageing on the functionality of the hearing organs, the changes in lifestyle, especially prolonged and frequent exposure to noisy backgrounds and loud music in the clubs or via headphones causes the hearing loss in the younger generations as well. For instance, the Netherlands (Pieters, 2015) reported that about twenty-five per cent of the youngsters between the age of twelve and twenty-five are affected by hearing loss.

In this age, the sensorineural type of hearing loss caused by the loud noises and ageing belongs to the health damages which cannot be reversed. Nevertheless, the continual progress in the medical sciences and technology

can bring discoveries assisting the treatment of this condition and repair the damaged hair cells and auditory nerve (World Health Organisation 2013, 157; Mizutari et al. 2013.)

4 PLANNING EXPERIENCES FOR THE HEARING IMPAIRED

4.1 Thesis Process and Research Methodology

4.1.1 Thesis Process

As described in the introduction, the author's interest in researching the topic of accessibility was already set at the beginning of the studies. Consequently, the actual administrative, research and writing work in relation to this thesis took nine months. The progress plan was decided in January 2016 and the actual realization of the project went according to the schedule presented in Table 5 without any significant difficulties.

Table 5. Thesis Process

Period of Time	Task	Research Method
January 2016	Idea paper and project plan submitted, commissioners found	
January-March 2016	Information gathering, studying relevant literature	Content analysis of the sources
March-April 2016	Writing the theoretical part, creating the interview structure	
June-August 2016	Conducting research	Mystery shopping, semi-structured theme interviews, content analysis
September 2016	Writing the research part, finalizing the project	

The early decision on the research topic enabled a swift choice of commissioners and cooperation with the municipality of Donauwörth (Germany). This cooperation led to a very fruitful and mutually beneficial research opportunity.

The only obstacle appeared in regard to the organizations and institutions for the hearing impaired. Four institutions in three EU countries (Finland, Germany and Great Britain) were addressed in regard to this project, from which only one responded, stating the idea looked interesting. They did not further cooperation in sharing or gaining any data from this project. This also meant closed door to

the opportunity of a bigger variety of interview respondents. Hence, the most useful ways of connecting with potential respondents became the word of mouth and social networks. Despite these setbacks, all parts of the research were carried out according to the schedule and the data processing phase was finished as planned.

4.1.2 Qualitative Research Methodology

The qualitative research was conducted, because the perceptions of the target group and the accessibility of the services and facilities were in the study focus. On the other hand, the interpretation of the findings has a high level of subjectivity (University of Maine 2010, 13–14; Burnard, Gill, Stewart, Treasure & Chadwick 2008, 431). For the purposes of this study, this challenge was solved by diversification of the research and triangulation of the data (University of Maine 2010, 8–10). For instance, the information revealed in the semi-structured theme interviews, which was the primary research method, was enriched by the opportunity to monitor the conversations in a deaf traveller group on social networks and studying the posts of deaf bloggers, vloggers and scientists (Brown 2014; Oliva & Simonsen 2000). This triangulation enhanced both the credibility and dependability of data. As Trochim claims (2006), credibility and dependability are the terms referring to validity and reliability of qualitative data.

According to the University of Maine (2010, 5), the data of the qualitative research can be collected in three ways. These include interactive interviewing, where the researcher interacts with the interviewees verbally, written descriptions, where the sample is asked to share their experiences in writing, or the researcher's own observations. In this study, all three forms of qualitative data collecting were utilized.

Semi-structured theme interviews, in which both interactive interviewing and written description methods were used, provided insights into the travel habits and experiences of the hearing impaired participants in tourism. The most effective way to connect with the suitable respondents was the word of mouth

and the closed groups on social networks, such as Facebook, which also enabled monitoring of the conversations for data triangulation. Delimitation of the thesis to the European Union and its strict target group orientation helped to form basic standards for choosing the respondents.

Two main criteria were created. Firstly, the respondent had to have experienced multiple travels within or into the EU region for leisure and/or business. Secondly, the potential interviewee had to have a level of hearing loss ranging from mild to profound (Figure 5), or live with/work for a hearing impaired person on a daily bases. Nine respondents agreed to the interview, but four of them later withdrew from the research. At the end, five respondents were interviewed; two sign language users with a profound hearing loss from birth, one hearing aid user with a medium hearing loss, one person with a mild hearing loss without any assistive technology or sign language proficiency and one employee of a German facility for the deaf.

Ritchie and Lewis, as well as Gillham (according to Newton 2010, 1) discuss various interpretations of the term interview, which they defined as “a managed verbal exchange.” What is more, Newton (2010, 1) explains the meaning of the semi-structured interviews as follows:

A useful concept in describing types of interview is the continuum; any particular interview can be placed somewhere between ‘unstructured’ and ‘structured’. The ‘unstructured’ pole is closer to observation, while the ‘structured’ use of ‘closed’ questions is similar to types of questionnaire (Newton 2010, 1.)

The semi-structured form of interview gave the respondents necessary space to share their experiences and perceptions on their travels without being limited or influenced. Hence, the role of the interviewer was introducing the research topic and steering the conversation flow back to its course when it got too far away from the research topic (Appendix 1). All respondents were given a chance to withdraw from the interview before or at any point of the interview. They were

instructed to only describe those issues and share those experiences they felt like sharing.

The observation method in style of the mystery shopping technique provided primary data on adjustments to the existing service and product offer have to be made in order to meet the requirements of the chosen target group. The methodology included content analysis of secondary data such as guidelines, studies and statements of the institutions advocating the hearing impaired individuals and communities.

As Michelson (2001) states, the mystery shopping research method is based on the anonymous shoppers who are given the evaluation guidelines of the service processes of businesses and organizations. They visit the facilities as customers and objectively assess the products, customer services, operations and staff. The assessment sheet might preferably include binary yes-no questions.

To conduct the observations of the service quality which the target group experiences, the author of this thesis took advantage of her hearing condition and collected the data from a sample of facilities including two museums, two theaters (one open-air stage and one cinema), a cultural event including a historically themed market and a guided tour. Additional facilities, although initially planned, were not required, as the repetitiveness of collected data suggested all the necessary information had already been gained. This part of the research took place in Germany (Bavaria) and Slovakia in July 2016. The general guidelines used during this part of research are enclosed in Appendix 2.

4.2 Key Research Findings

4.2.1 Analysis of Mystery-Shopping Data

Based on the observations made during the mystery shopping research, I found out that the service providers usually have a little understanding of the needs of their hearing impaired clients. In a similar manner, they were also generally

unaware of the differences between the visitors with a complete loss of hearing and the hearing impaired visitors relying on their hearing aids, with the latter group receiving the least recognition of requirements for a successful interaction.

The data from this research, which was conducted with the help of the general guidelines presented in Appendix 2, three main result patterns were decoded. These three result categories, namely safety, assistive technology and performance of personnel, are parallels to the access enablers of Small and Darcy (2011, 6) described in the chapter 2.3.3. Table 6 represents the set of data collected by the mystery shopping method.

Table 6. Mystery Shopping Research Results

Facility	Category 1: Safety	Category 2: Assistive Technology	Category 3: Performance of Personnel; Communication Channels
Museums	<ul style="list-style-type: none"> Emergency exits and plans of the buildings accessible and visible 	<ul style="list-style-type: none"> No induction sound system Videos present – no closed captions (CC), no headphones; video and screen quality low Information on hearing dogs accessibility N/A well-lit front-line area 	<ul style="list-style-type: none"> friendly, patient but needed to multitask → longer waiting time for a hearing impaired to receive the instructions/information background traffic noises at the front-line area
Guided Tour	<ul style="list-style-type: none"> the visitor has to heed the traffic while constantly “reading” the guide 	<ul style="list-style-type: none"> Option to get some tours on an I-pod lent from the tourist office (with headphones) 	<ul style="list-style-type: none"> information presented by the guide drowns in the street and traffic noise
Event	<ul style="list-style-type: none"> Emergency exit plans of the venue not visible no active visual contact channel or chat for the cases of emergency the medics present 	<ul style="list-style-type: none"> CC/headphones N/A hearing dogs access (but not marked) Tickets for the key performances not sold online 	<ul style="list-style-type: none"> busy and noisy environment; bad quality of interaction detailed information given mainly verbally (personally or via phone)
Open-air theatre	N/A	<ul style="list-style-type: none"> Induction (T-loop) installed Information on hearing dogs accessibility N/A tickets available online good accessibility for the physically disabled 	<ul style="list-style-type: none"> the tickets available online the presence of the induction marked with an unknown symbol; lack of explanation on the web page
Cinema	<ul style="list-style-type: none"> Well-marked and visual emergency 	<ul style="list-style-type: none"> No induction sound system 	<ul style="list-style-type: none"> booking available online

	exits and plans	in the front line area • No CC/subtitles used	<ul style="list-style-type: none"> • staff multitasking, no time for time-consuming interaction • lack of staff
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Safety measures were generally on a good level especially in the facilities. On the other hand, the open air event emergency and venue exit plans were only accessible online and from the info booth brochures; they were not visible on-site. The general map of the venue and the program of the event were also not graphically present. Thus, the visitors found for instance the information booth only when standing close-by.

Supportive technology was installed only in one case (open-air theatre). It was, however, labelled with a scarcely used symbol indicating the induction loop presence. From the label alone (Figure 6), it was not clear which case of accessibility the provider wanted to announce. The existing options of accessibility in this particular facility were communicated differently, or not at all, depending on the source of the information used on a specific web-page.



Figure 6. The Open-Air Theatre's Choice of an Inductive Loop Label

The pictogram indicating facilities for the hearing impaired underwent similar process of differentiation as the general accessibility symbol (Figure 1). Since the group of the hard of hearing consists of people with hearing disorders which greatly vary, the pictogram of accessibility for the hearing impaired shown in Table 1 can indicate both, induction-loop systems helpful for the hearing-aid users, as well as staff trained to communicate with the deaf visitors, using for instance basics of International Sign. On the other hand, clear and recognizable symbols for the variety of supporting sound systems for the hearing aid users have been developed. If marked correctly, the hearing aid user understands they could switch their hearing aids into the T-position (if applicable) to get the sound directed straight into their ears, or in cases of other hearing systems,

contact the reception desk/organizer/tour operator to receive the equipment. This also sends a clear message to the deaf visitors that the facility only supports the hearing aid and cochlear device users.

Figure 7 depicts the symbols of three various hearing systems. These are the inductive - T, infrared – IR and the radio- (or wi-fi) systems – FM.



Figure 7. Hearing Systems Labeling (Deutscher Schwerhörigenbund e.V. 2016)

Another issue that became obvious was the hearing dogs' accessibility. The consistency of information was lacking even at venues where the dogs were generally accepted; a proper symbol usage (Table 1) would have enhanced the service quality for those impaired who rely on a hearing, guide, or another kind of a service dog.

Hand in hand with the lack of information consistency goes an inappropriate usage of communication channels. The information was usually given verbally, either personally or via phone. An option to communicate via email, social networks or with a chat-room assistant rather than a busy front-line employee was limited. Visual updates or messaging support were not implemented. Personnel, while helpful and patient, could provide consistent information only up to a point when they had time and no other customers. They were often forced to multitask, which decreased the quality and efficiency of the information exchange.

All these findings indicate that besides misunderstandings regarding the needs of this target group, the communication channels of service and experience providers are also not developed appropriately in order to support effective and safe information exchange with this target group.

These results are supported by the existing studies on information provision, information channels and disability (Eichhorn, Miller, Michopoulou & Buhalis 2007; Pine & Gilmore 1998). In this regard, the outcomes of the mystery shopping research are in accordance with the findings of Eichhorn and his colleagues (Eichhorn, Miller, Michopoulou & Buhalis 2007, 1) when pointing out that the fragmentation of given information leads to the compromised quality and a lack of target-group appropriate use of communication channels and media.

4.2.2 Results of Semi-Structured Theme Interviews

Five respondents who met the criteria were eventually interviewed. Three interviews were conducted with the help of a chat platform due to the sound/sign language barrier, while two were conducted personally. The main language of two interviews was English, for other two it was Slovak, and one was conducted in German. The nature of information acquired in the German interview proved necessary for creating a background picture about the sign language practice and the travels of the hearing impaired in general. However, since the information did not refer to the perceptions and experiences of the hearing impaired travellers, it could not be included in the final data processing.

The statements of the four remaining respondents were grouped into general themes (Appendix 1). These included the personal information and the severity of hearing loss, which is going to stay anonymous, travel attitudes and the communication channels and performance of the service or experience providers.

The interviews have confirmed the guidelines presented by the European Commission (1996, 117), for instance the importance the staff training and communication, but also cast more light on the customer journey of the hearing impaired travellers and the most problematic touch points.

Table 7. Travel Attitudes of the Interviewees

Participants with Severe/Profound Hearing Loss

- I never tell them I'm deaf. That has no influence on my choices. (Interviewee 3).
- ...it's always completely independent for me. It is always more expensive if I book special experience trips. I get my information from travel books or internet. (Interviewee 3).
- We research on the flight ticket deals, the location we want to visit, and then book. That's pretty much it....We have never relied on anybody else. ...In Malta, we used Internet information about ferry from Malta to Gozo with no issues. We never go into tourist office, never. (Interviewee 1).

Participants with Mild/Moderate Hearing Loss

- My choices are based on the ads in the newspapers, TV, internet or bilboards...also according to the recommendations of my family and acquaintances. I like to consult the travel plans, trips... conditions, etc. of the holiday with the tour operators. (Interviewee 2; translated from Slovak).
- Preparing a trip takes us months; we book everything online. We search for the information by ourselves, we compare various web sites, then discuss the pros and cons of each place, accommodation, way of transportation, etc. I usually create a list of things I want to see in the location. I like book guides, or sometimes I just copy my notes to the phone and go to places individually, without a tour guide. That's one thing I avoid, having to observe a stranger whose accent I don't understand instead of looking at the attraction, in a noisy surroundings with bad acoustics. (Interviewee 4; Translated from Slovak).

As illustrated in Table 7, respondents who are deaf from birth demonstrated a very independent approach to travelling. The respondents neither contacted the tour operators before their trips nor did they go to the tourist offices for any additional information about the destinations they were visiting. What is more, the information gained from monitoring the deaf travellers' group conversations on a social network suggests that the individuals with a severe and profound hearing loss are not interested in purchasing any experience products designed by the tour operators. However, they are not inhibited from travelling.

All respondents claimed the level of impairment did not have any influence on their travel choices. In the case of the respondent with a moderate hearing loss, the travel arrangements were usually orientated around the low seasons. The decreased number of tourists meant for this traveller lower levels of noise and better communication and service quality, since the staff would not need to rush to another customer without providing all the information this respondent required.

This suggests that all the touch points of the pre-site experience are happening in the internet, which is used as the main channel of communication and a medium for booking the trips or their segments. This final statement is

complemented by the data acquired from the monitoring of the conversations in a deaf traveller group on a social network.

This outcome of the research, combined with the findings from the previous chapter which claimed that the service providers' communication channels are not used appropriately and the shared information lacks consistency, gives a broader picture about the most serious issues of these touch points in regard to the target group. On the other hand, at least one respondent with a mild hearing loss was ready to cooperate with the tour operators. This suggests a possible correlation between the severity of hearing loss and the travel attitudes, which needs to be a focus of quantitative research in the future.

The quality of the on-site experience from the point of view of the hard of hearing was already analyzed by the mystery shopping research methods. The interviewees, nevertheless, shared their own perceptions of the service providers' performance and communication efficiency they experienced on their travels in Europe. One of the respondents unknowingly summarized the opinions and experiences of two other interviewees as well:

Europe is not entirely deaf friendly. I would appreciate to see closed caption on televisions at the airports and better access to communication if there's any changes or whatever with our plane. We had to scramble all over to get simple updates - to no avail. So we had to use Twitter. I also wish all airports are well informed that deaf people can walk. Having "deaf" on our tickets always end up having somebody at the gate waiting with the wheelchair and forcing us to ride in it. Kinda embarrassing. We had to tell them repeatedly that we didn't need wheelchair. We walk fine. They still insisted. (Interviewee 1).

This statement points out how multifaceted the accessibility issues are and how difficult to manage they might become. First of all, this validated the findings from the mystery shopping research, which are claiming that the service providers misunderstand the needs and requirements of the hearing impaired persons. As stated in various chapters of this paper, there is no such thing as

“one solution suits all”. Therefore, if an experience provider wants to offer excellence, the staff at all touch points has to be aware of these differences in requirements. Proper staff training on accessibility is therefore highly recommended.

Secondly, the issue of inappropriate usage of communicational channels and utilization of assistive technology seem to be of high importance not just for the hearing aid users. The connection to the internet is vital especially in urgent cases when other than social media are not available or are insufficient. This calls for implementation of customer support chat-assistance outside of the social network platforms as an equivalent to the traditional call-centre. Another implication of assistive technology, which was pointed out by the interviewees, was insufficient utilization of closed captions (CC) or subtitling the video footages. Even if there are for instance marketing videos without speech accompanied only by music; a deaf traveller would not know it.

Thirdly, the face to face interaction with the personnel who did not have any knowledge about the requirements of the hearing impaired had the biggest negative impact on the hearing aid using respondent:

I sometimes don't understand what they are saying, so I ask them to talk directly at me and repeat things clearer. Sometimes they look like I really bother them, or they raise their voice so much they are almost shouting like I was really deaf, not realizing that I happen to be sensitive to the high pitched voices, especially with my hearing aids in. It's actually very rude. Really offensive. (Interviewee 4; translated from Slovak).

As stated above, to improve the quality of the offering, the management of the service facilities should consider investments into the training possibilities of the front line personnel.

To conclude, the outcomes of this qualitative research complemented the findings of the mystery shopping research in regard to the assistive technology and communication channel issues. To achieve better hearing impaired customers' satisfaction, it is necessary to educate the staff about the

accessibility issues and various communication styles. This can happen in cooperation with the institutions or non-government organizations for the deaf and hearing impaired.

Unlike the accord of the mystery shopping findings and the studies discussed in Chapter 4.2.1, there is one contrast between the interview results and findings of the previous studies (Disability Now 2005, Imrie & Kumar 1998, McKercher et al 2003, Shaw et al 2005, according to Eichhorn, Miller, Michopoulou & Buhalis 2007, 4; Yau, McKercher & Packer 2004). These state that the disabled individuals are inhibited to travel due to the incorrect or incomplete information given by the service and tour providers, especially in the travel analysis phase (see Table 3). In the case of the hearing impaired, unlike by the physical disabilities, none of the interviewed travellers were inhibited by the conduct of the travel operators or inconsistency of information. Except for one respondent with a mild hearing loss, all the other interviewees developed strongly individualistic travel habits, which might be a direct effect of dysfunctional communication; nevertheless, all the respondents were very passionate about travelling.

This phenomenon might correlate with the hearing impaired travellers' small level of support needs (Small & Darcy 2011, 5), which was discussed in the chapter 2.3.3. What is more, the observations of the in-group communication dynamics were hinting at the importance, even pride, of belonging to such a clearly differentiated group of very distinctive and self-sufficient individuals, the hearing impaired. This, in addition to the fact that the service providers' communication platforms are inappropriately developed might also be the reason why the post-site stages of travelling, sharing the experiences, happens mainly on the platforms for the hearing impaired.

4.3 Planning Meaningful Experiences for Hard of Hearing

4.3.1 Defining Meaningful Experience

The term experience has various connotations. Gelter (2010, 49), proposing his Total Experience Model, states that the word experience has roots in Latin with the original meaning of knowledge gained through repeated trials. Furthermore, Snel (according to Gelter 2010, 49–50) points out that the word names two different concepts in English, while in some languages, such as German, Finnish or Slovak, these two concepts have different names. He therefore chooses German equivalents of the term experience and diversifies its meaning into *Erlebnis* and *Erfahrung*. *Erlebnis*, which is more equivalent to the words encounter or event than referring to knowledge gained, is in the tourism industry more popular, albeit it is the more superficial, fleeting one of the pair.

Pine and Gilmore (1998, 98) recognize the economic value of experience; and by placing it on par with commodities, goods and services, they form the foundations of experience economy. They do not see experience as a nondescript entity, what they proved in the chart (Table 8) of economic distinctions.

Table 8. Economic Distinctions (Pine & Gilmore 1998, 98)

Economic Offering	Commodities	Goods	Services	Experiences
Economy	Agrarian	Industrial	Service	Experience
Economic Function	Extract	Make	Deliver	Stage
Nature of Offering	Fungible	Tangible	Intangible	Memorable
Key Attribute	Natural	Standardized	Customized	Personal
Method of Supply	Stored in Bulk	Inventoried after production	Delivered on Demand	Revealed over a duration
Seller	Trader	Manufacturer	Provider	Stager
Buyer	Market	User	Client	Guest
Factors of Demand	Characteristics	Features	Benefits	Sensations

As seen in Table 8, among the other distinctions, authors also identify the nature of offering. This differentiation from the tangible products and intangible

services set the direction of the new phase in tourism industry, staging memorable experiences. Hence, the question what makes an experience memorable arose.

The answer was found in the updated version of Maslow's Hierarchy of Needs. As Koltko-Rivera (2006, 303–304) states, Maslow himself wondered what happens to motivation of individuals after all their needs, even the peak of the pyramid - the attempts to self-actualize, are satisfied. The author (Koltko-Rivera 2006, 304) describes Maslow's doubts that self-actualization was the capstone of the pyramid and how the researcher consequently started exploration of what he called *peak experiences*. These included all the mystical, aesthetic and emotional experiences; and the researcher observed that the

Peak experiences often led the self-actualizing individual to transcend the personal concerns of the very self that was being actualized (Koltko-Rivera 2006, 304).

Maslow therefore added a new level to his pyramid of needs, making the self-transcendence a new capstone, as shown in Table 9.

Table 9. Rectified Version of Maslow's Hierarchy of Needs (Koltko-Rivera 2006, 303)

Motivational Level	Description of person at that level
Self-transcendence	Seeks to further a cause beyond self and to experience a communion beyond the boundaries of the self through the peak experience.
Self-actualization	Seeks fulfillment of personal potential
Esteem needs	Seeks esteem through recognition or achievement
Belongingness and love needs	Seeks affiliation with a group
Safety needs	Seeks security through order and law
Physiological (survival needs)	Seeks to obtain the basic necessities of life

Tourism industry benefited from Maslow's contribution to the field of psychology and consequently, a definition of a meaningful experience with regard to tourism was developed.

Same states (2013, 7–8) that the analysis of the concept of experience by marketing experts Carú and Cova defines experience as a

subjective episode in the construction/transformation of the individual with, however, an emphasis on the emotions and senses lived during the immersion at the expense of the cognitive dimension (Carú & Cova, according to Same 2013, 8).

According to Tarssanen and Kylänen (2009, 10), Komppula and Boxberg (2002, 29) consider a meaningful experience

...a personal, subjective experience: meaningful experiences cannot be guaranteed. However, the meaningful experiences can be affected significantly by paying special attention to the customer experience. (Komppula & Boxberg 2002, 29, as defined by Tarssanen & Kylänen 2009, 10.)

4.3.2 Designing Memorable Experiences

Building on the features of experiences discussed in Table 7, Pine and Gilmore (1998, 102–104) tried to describe the nature of experiences more in detail. They developed a concept of experience dimensions, which they named customer participation and connection (environmental relationship). They claim that every experience can be placed somewhere on a spectrum of these two continua, what subsequently creates Four Realms of an Experience as seen below:

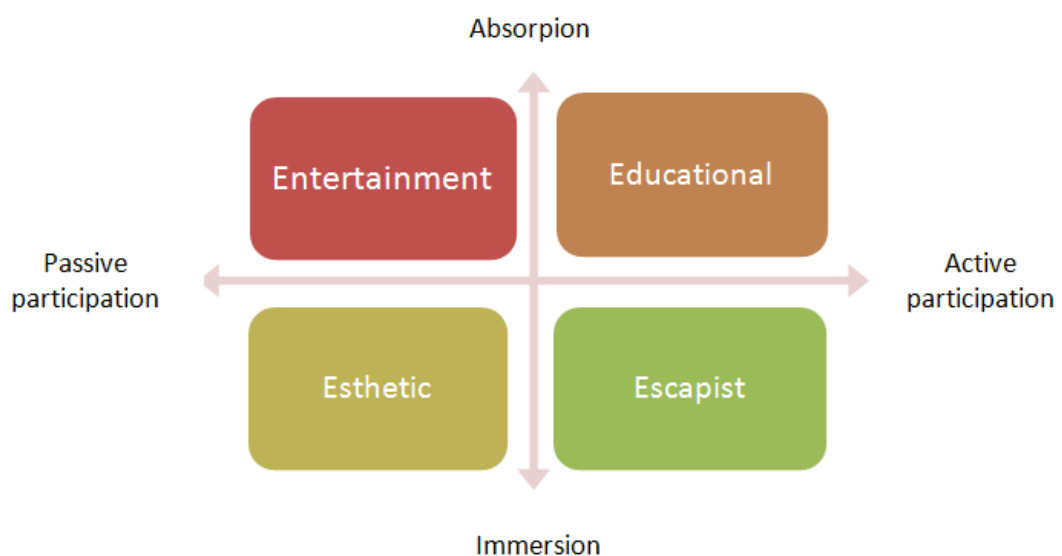


Figure 8. The Four Realms of an Experience (Pine & Gilmore 1998, 102)

Pine and Gilmore (1998, 102) claim that the richest experiences encompass all four elements of these realms. They call the balance which is reached in the intersection of all the elements of extraordinary experiences a *sweet spot*. It can be therefore assumed that developing a meaningful experience must plan with inclusion of all four elements.

Beside the foundation to experience design that Pine and Gilmore laid, there are various models and tools useful in later phases of experience design. One of the models, developed by Komppula and Boxberg (2002, according to Rytönen 2014, 21–22) is a three-level model for designing a customer-oriented tourism product. The service concept level is a core, which addresses the customers' needs and creates value. The next level, the service process, includes the company's blueprints; these are the visible processes from the customers' point of view. The outer layer of the service system includes external and internal resources of the company, its image, hospitality culture and mission.

The Experience Pyramid (Tarssanen & Kylänen 2009, 11) is another instance of an instrument suitable for detailed experience planning, especially for troubleshooting a product while still in its development stage. The pyramid combines the elements of experience with the customer's perception.

The models described above are the practical tools for designing experience products in detail, with help of which the experience product designer could take the product through the development stage to the production. However, since this thesis focuses on the front-end stage phases of experience design, namely the research and ideation of the experiences (Figure 9), these models are not argued in further detail.

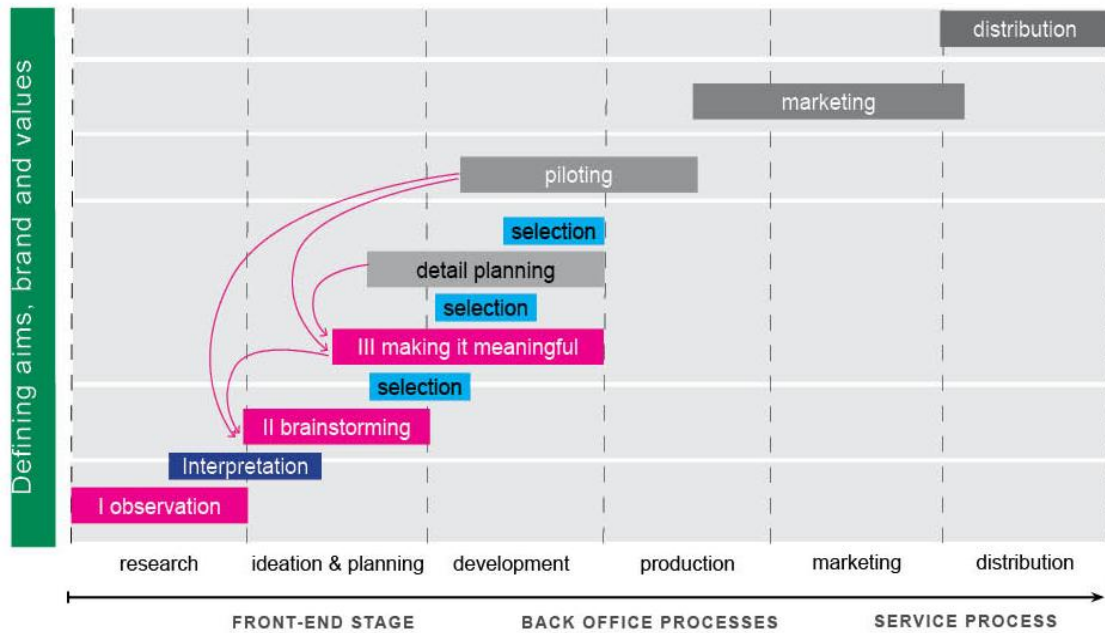


Figure 9. Experience Design ED (Tarssanen 2013)

For the purposes of this thesis, the product development ideas are discussed in the framework of five experience design principles introduced by Pine and Gilmore (1998, 102–104). These include theming the experience, harmonizing the customer's impression with the positive while eliminating the negative cues, use of memorabilia and engaging all five senses.

4.3.3 Multimedia Tour

This product suggestion was commissioned by the municipality of Donauwörth and the German original of this product ideation was developed by Preston (2016, 10–13). The original is enclosed in Appendix 4. The traditional city-centre tour characteristic makes this development idea suitable especially for the destination management organizations, due to their variety of available resources. In their original form, as mentioned in Chapter 4.2.1, guided city tours are not an attractive experience for a hearing impaired visitor. Nevertheless, they can be adapted to satisfy the needs of self-sufficiency and language-barrier absence, which are the core of the tourism and travel related issues of this target group.

The principle of the Multimedia Tour is based on the traditional treasure-hunt game, where the hints are given in order to find an object, the treasure. In this case, the guidance is given by the means of assistive technology, which can include an application accessible by a tablet, cell phone or an iPod. This way offers the possibility of a city-centre tour without the need to focus on a human guide, which is energy-draining for the hard of hearing and unsafe for the deaf, since the guide would have to use a strictly visual communication mode. This is a step in the direction of eliminating negative cues (Pine & Gilmore 1998,103–104) and reducing the constraints connected to the tourism-activity participation.

The destination management organizations can theme the application according to the resources available, for instance as a cultural or a nature-based tour. Choosing one option from the menu, the application would start a series of questions, which would require participant visit various places and attractions of the city. By typing a correct answer to a question, participants unlock an achievement, similarly to the techniques used by the gaming platforms and consoles like Xbox and Steam. Unlocking an achievement is a small reward for progress in the game, rather than fulfilling the main objective. In the Multimedia Tour, the achievements would take the form of additional information and icons aligned with the answers, by which they were unlocked. From each answer, a letter is taken. Each letter, a part of the main game objective - solving a puzzle, would fit into a certain place of the puzzle. The tour participant would be able to fill in the missing letter by guessing, which would mean the visitors are left to decide by themselves to which of the suggested places they go and in what order they visit the attractions.

In the original project (Appendix 4), answer MONDSPRITZER is suggested; this word refers to a nickname for a local in Donauwörth. The trophy for solving the puzzle is a tangible memorabilia aligned with a theme. In the discussed case of Donauwörth, the local tourist information centre happens to have the Mond-Spritzer candy available as souvenirs. This way, the hearing impaired participants would decide themselves whether they want to communicate with the tourist information centre in order to collect their reward. In the case they

decide to interact with the tourist centre, they might be willing to provide valuable feedback as well.

4.3.4 Painted History

This product has been suggested for public sector, the municipality of Donauwörth and their city library by Preston (2016, 7). This library already hosts exhibitions and events for children. The facility is equipped for various performances. For instance, a small stage provides an opportunity for puppet-shows. The assistive technology for the hard of hearing has not been installed.

Considering the nature of this facility and its already existing equipment, the cooperation with the local artists has been suggested as the most suitable product. On a monthly basis, a chapter from the town's historical era (a theme) can be portrayed in the pictures, drawings or presentations of performance artists. For children, a fairy tale could be adapted to pictures, which would be supported by tangible objects depending on the type of the fairy tale. As Preston (2016, 7) stated, the drawings and paintings are language-barrier free, so these exhibitions could also draw the international visitors and travellers.

These suggestions satisfy the theme, multiple senses-activation and memorabilia principles of Pine and Gilmore (1998, 102–104). Eliminating negative cues, discussed in detail in Chapter 4.3.3., includes tackling the language barrier, so the participants can express themselves more freely and be understood. This can be supported for instance by the Universal Language app (Medical Observer 2015). The principle of harmonizing the positive cues is in this case closely connected to the direction markers, labels and the appearance/costumes of the library staff. These elements should be functional and aligned with the theme.

5 CONCLUSIVE DISCUSSION

The purpose of this project was to map the situation in tourism for the hearing impaired travellers; how they perceive the tourism service offer, if there was any. In result, a set of products was suggested, which could help entrepreneurs within the EU area understand and accommodate the specific needs and requirements of their hearing impaired customers.

The findings highlighted issues which the entrepreneurs should consider solving if they want to provide excellent services for this customer group. These issues are inconsistency of information including usage of hearing accessibility symbols, misunderstanding the needs of their hearing impaired customers and efficient means of communication. This observation is in accord with Pine and Gilmore's opinion (1998, 104) that the service providers in general often choose an inappropriate communication channel or a message medium. Hence, the list of negative cues to be eliminated in the offered products and services grows.

The main results also stressed the fact that at the current state of the offer, the majority of the hearing impaired travellers are not interested in purchasing experience products. With the reference to one of the five stages to becoming travel-active, the experimentation and reflection phase described in Table 3, the evidence suggests that the respondents had faced those in the table discussed barriers and these encounters, while not inhibiting them from travelling altogether, shaped their travel habits into strongly individualistic ones. In regard to this, offering an experience which eliminates the communication barriers and creates value for this target group, but which is still viable enough to stay in the active product portfolio of a company, is a challenge which takes on multiple issues at the same time. The most important starting point an operator should address is therefore finding the most adequate method and channel of communication.

Whether it is the International Sign, instructions on paper, a story booklet, visual story-telling techniques, Universal Language app (Medical Observer 2015) or a combination of those, it is important to understand that the tour guide or a host

is not the only person who has stories to tell. In order to design a memorable experience, the clients' thoughts and wishes need to be heard and understood as well. What is more, as Oliva and Simonsen (2000, 83) point out, a person with a significant hearing loss would want to participate in a leisure activity where conversation is significant only if the communication channel, the mode, of other participants was the same. This seems to be the case, as the respondents with a severe and profound hearing loss were less likely to purchase organized tourism or experience products offered by the providers.

Nevertheless, the sign language is language like any other; it is changing and evolving while being used. Like any other language, it varies from country to country; it has its dialects. There is also the International Sign, a pidgin version developed for interacting in multinational settings. A direct implication of these facts, which were pointed out by an interviewee, means the existence of language barriers also among users of various sign languages, not only between the sign and "voice" language users. This language barrier needs to be addressed as one of the top priorities if a tour operator decides to acknowledge the needs of the hearing impaired travellers and design experiences for them.

The underlying issues frequently observed in the smaller to medium size service providers, such as high seasonality connected to high employee turnover which is making proper staff training unprofitable, or tendencies to keep a facility understaffed, have also an impact on the quality of the front line employees' interaction with the visitors. Accessibility training for personnel and managers, or at least collaboration with the local institutions advocating the hearing impaired and deaf, is therefore recommended. On the other hand, the above mentioned issues seem to be more of a challenge for the private service providers; the starting position of a public or a public-private organization might be somewhat easier due to the lower orientation on profit.

The scope of the study had several limitations. The geographical limitation to the countries of the European Union proved important for discriminating the most relevant sets of regulations and laws; these were used as the foundation of the research. Another limitation applied to the target group; the focus was on

the hearing impaired and deaf travellers. The experience product design introduced the third and the last limitation of this thesis; only the research and ideation of the experience products were discussed as the detailed development and finalization of experience products was out of the scope of this project.

Qualitative research methods were implemented. The literature analysis provided an overview of the topic of accessibility, revealing a lack of research in the field of tourism for the hearing impaired and incompleteness and inconsistency of the statistical data throughout the whole area of the European Union. The EU regulations and guidelines formed the basis on which the mystery shopping research framework was built-up. The mystery shopping helped to create a picture of the existing offer, quality of service of the tourism facilities and their accessibility and usability by the hearing impaired travellers. The semi-structured theme interviews brought insights into the hard of hearing visitors' perceptions of the current service offer and the most significant issues of the tourism industry they had to face on their travels.

There are several implications which could be targeted by the future studies. Firstly, data collected in the qualitative research of this project suggested an inverse proportion between severity of hearing loss and willingness to purchase designed experience products. The proof that these two indicators are in mutual correlation should be examined by the means of quantitative methodology. Secondly, the analysis of the existing studies especially with regard to Chapter 2.3.1 brought another potential data correlation. In this case, the indicators in question are the visibility of impairment and the service providers' recognition of needs of individuals with these impairments. This correlation might have a direct impact on the collection of statistical data; as mentioned in the Chapter 3.2, the data is often incomplete due to the inconsistency of collecting methods, lack of more centralized registration centres, insufficient public education and missing guidelines.

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APPENDICES

- Appendix 1. Semi-structured Theme Interview Draft
- Appendix 2. Mystery Shopping Guidelines
- Appendix 3. Summary of Accessibility Criteria for Guests with
Hearing Impairment
- Appendix 4. Multimedia Treasure Hunt (In German)

Appendix 1 Semi-structured Theme Interview Draft

THE INTERVIEW STRUCTURE

1 GENERAL INFORMATION

- Interviewees (5-15 persons)
 1. a, with various types/levels of hearing loss (up to 75% of subjects), or
 2. b, person living/working with a hearing impaired/deaf
- international subjects (Finnish, English, German, etc) contacted preferably via social networks groups, institutions & organizations
- conducted via a chat platform due to the impaired hearing
- semi-structured; general guide approach is combined with open-ended questions.
- directed at collecting the perceptions of the hearing-impaired about (not only tourism) services
- identifying the needs and preferences of the hearing impaired and the most common barriers to travel/enjoying tourism services

Estimated length: 0,5 – 2hrs

- Depends on the interviewee's typing speed
- Can be split into parts

2, THE INTERVIEW FLOW

1. Describing the topic of research to the interviewee and the basic rules (e.g. no need to answer questions or talk about a topic they feel uncomfortable with).
2. Background information (demographic information, such as age, education level, job situation, salary → all of these are optional, it depends on the interviewee what they would like to share - if anything).
3. Information about the level of impairment or the relation to an impaired persons in the surroundings → if the interviewee is willing to share.
4. The barriers. Communication and interaction in everyday tasks.
5. The interviewees' habits to travel and their experiences with and perceptions of the service providers (restaurants, attraction providers, transport personnel, etc). Their best and/or worst experience.
 - relevant for identification of the touch-point issues
6. Interviewees' wishes for meaningful experiences; their suggestions and feedback to the service providers. Their hopes for the future.
7. Thanking the interviewee for their time and sharing the information.

Appendix 2 Mystery Shopping Guidelines

Technical guidelines

Partially hearing impaired, hearing aid users:

Assistive technology in the building (T, IR, FM)

Headphones/CC option for video and films (if applied)

Profoundly hearing impaired, sign language users:

Existence of a clear, accessible and visual emergency plan

Visual alarms additional to sound alarm systems

Instructions and information – how are they communicated?

CC option for video and films (if applied)

Hearing dogs accessibility

Environment and Surroundings

Existence of background noise – traffic, loudspeakers, etc. Options of possible elimination of these noises.

Lighting of the front line area

Visualized notifications and updates, instead of announcements

Personnel

Training the service personnel for the disabled customers

Way of talking/instructing (patience, clarity, no yelling!)

Option to spend a longer period of time explaining the instructions → staff available or company understaffed?

Appendix 3 Summary of Accessibility Criteria for Guests with Hearing Impairment (European Commission 1996, 117)

The information below summarises the adaptations and provision that would be either desirable or, in some cases, essential if you are to be able to welcome guests who are hard of hearing. Where an item is preceded by an asterisk (), these provisions are for profoundly deaf guests. If these items are incorporated whilst planning new accommodation or refurbishment, this would enable hearing impaired clients to be accommodated at a minimal extra cost.*

Fire detection alarm

Arranging to have deaf guests in adjoining rooms makes contact easy in the event of an emergency developing.

Extra loud alarm bell or visual/vibrating alert activated in guest room/s by smoke detector or fixed fire alarm system.

Visual/vibrating alert activated in guest room by smoke detector of fixed fire alarm system.

Staff/guest contact

Writing materials in bedroom and reception areas, together with fixed or personal induction loop system at reception.

Telephone

Coupler/amplifier together with visual/vibrating alert fitted to bedroom telephone, where provided, or telephone for shared customer use. Text telephone system for external calls, and to contact reception where room service is provided

Door detection

Extra loud doorbell and/or a visual/vibrating alert detected within guest room/s.

TV

Teletext and/or portable listening device for watching television, where provided in the bedroom or communal lounge.

Early morning call

Alarm clock with visual/vibrating alert.

Staff assistance

Always face a person who is deaf or hard-of-hearing directly and speak at a normal volume at normal speed (or slightly slower than normal). Do not exaggerate mouth movements. Some hard of hearing people would appreciate it you raise your voice slightly, for others with hearing loss the high frequency will cause problems. The most important thing is not to shout! - ask the client how you should speak. External sound is confusing for people using hearing aids so minimise sound distractions wherever possible. Do not speak with a light behind you as you will be in silhouette which will make lip-reading almost impossible. Have a pad and pen handy to write down information when communication is difficult.

Appendix 4 (1/3) Multimedia Treasure Hunt (Preston 2016, 10-12)
in German

1,

F: Am welchen Felsen liegt die Freilichtbühne Donauwörth?

A: am **M**angoldelfsen.

Man kann mit dem Leistungs-Icon eine Information hinzufügen, dass die Schwerhörigen die Spiele mit Hilfe der induktiven Höranlage dort geniessen können.

2,

F: Was kann man in Donauwörth sogar auf 5 Flüssen machen?

A: **B**ootfahren

Als Leistung bekommt man Informationen über die Flüsse, und noch zusätzliche Infos wo man einen Kanu ausleihen kann (z.B. Kanu-Laden Purtec)

3,

F: Wann kann man Kunst- und Lichternacht in Donauwörth erleben?

A: Im **N**ovember

Als Leistung bekommt man mehr Informationen über die Kunst- und Lichternacht.

4,

F: Was ist der wichtigste/grösste Fluss der Stadt?

A: **D**onau

Als eine Leistung kann man Informationen über die Natur-Einzigartigkeit Donauwörth bekommen.

5,

F: Bei welcher Gelegenheit spielen 1000 Kinder die Stadtgeschichte?

A: **S**chwäbischwerder Kindertag

Dann kann man noch mehr Informationen über die Veranstaltung geben.

Appendix 4 (2/3)

6,

F: Wodurch wurde Käthe Kruse bekannt?

A: Puppen

Mit der Leistungs-Icon kann man die Informationen über die Käthe-Kruse-Puppen-Museum geben.

7,

F: Welche Strasse ist die Hauptstrasse Donauwörth's?

A: Reichstrasse

Leistungs-Icon mit der Geschichte der Stadt.

8,

F: Was bietet die Stadtbibliothek an?

A: Internetkafé

Als Leistung bekommt man die Informationen über die Veranstaltungen.

9,

F: Ehemaliges Postamt Donauwörth's, wo man heute gut essen kann.

A: Posthotel Traube

Leistung: Interessante Fakten aus der Geschichte

10,

F: Was war die traditionelle kulturelle Gesellschafts-Zentrum Donauwörth's?

A: Tanzhaus

Leistung: Interessante Fakten aus der Geschichte

11,

F: Was ist die Familienname des berühmtesten Komponisten aus Donauwörth?

A: Egk

Man entpernt die Informationen über Werner Egk, zusammen mit Info über die Ausstellung „Werner-Egk-Begegnungsstätte“.

Appendix 4 (3/3)

12,

F: Wie heisst der Insel in der Stadtmitte?

A: Ried

Leistung entsperrt die Informationen über die Traditionen und Gewohnheiten der Donauwörther.

Answer: MONDSPRITZER