Sensory tourism: A case study on Devnar school for the blind

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Abstract

Sensory tourism is a form of tourism aimed at attracting the physical and multi-sensory aspects of travel, enhancing the travel experience specifically for the visually impaired, but also benefits those around it. The visually impaired face many difficulties related to traditional tourism, such as the ability to access information, navigate, safety and knowledge of those around them. This results in visually impaired members traveling much less than non-visually impaired people. This paper aims to determine the challenges and issues faced by visually impaired students and their teachers at Devnar School for the Blind while undertaking and organizing travel respectively, along with identifying facilities and infrastructure required for visually impaired students to undertake travel. The scope of the study focuses on Devnar School for the Blind in Hyderabad, Telangana. The targeted respondents of the research were teachers and students at the school and data were collected through open-ended questions to understand the challenges and issues while undertaking and organizing travel for the visually impaired. The data were analysed with the help of thematic text analysis. The findings from this study will help to determine the issues and challenges and identify scope for improvement in sensory tourism.

Keywords:
Sensory Tourism, Visual Impairment, Issues and Challenges, Devnar School

1   Introduction

The state of Telangana has a lot to offer tourists with respect to its attractions and activities. The state has many historical monuments such as the Golconda fort, the

Charminar and Paigah Tombs which are perfect places to visit for history buffs as it provides a little insight into the history of the state and country. The state also has many waterfalls and is also a popular tourist spot for religious tourism. Telangana is usually having a number of tourist attractions that include hills, creatures, forests, barriers, sacred places and much more (Swapna & Thyagaraju, 2020). While there are many popular tourist destinations, activities to do and a rich cuisine and culture that prompts tourists to visit Telangana; the state is very behind when it comes to inclusivity of sensory tourism. There are no facilities or amenities in place that can help in accommodating the visually impaired tourists because of which they face a lot of problems at almost every step of their journey. Such tourists face difficulty as well as stigma from everyone around them and people often think that just offering them their sympathies is enough. Disability is a neglected issue in tourism research, and there are even fewer studies examining travel experiences of visually impaired people (Richards et al., 2010). The state should invest more into making themselves more inclusive by investing in technology to make attractions friendlier for the visually impaired.

1.1 Sensory Tourism and Inclusivity

Many researchersthere was a lack of acknowledgement of blind people market in the tourism sector and their ability to undertake tourist activities (Pujol Fernández & Vergés Ubach, 2018). The concept of sensory tourism reflects on development of tourism facilities that caters to the visually impaired tourist class. Inclusivity of the visually impaired remains an agenda that many tourism organizations still continue to overlook. Tourism Sectors such as tour operators and travel agencies think that inclusivity means just adding the option of a wheelchair when it comes to providing amenities or making travel easier for the impaired, that is gravely wrong as the companies often brush their responsibilities off by not providing facilities and options for the people belonging to the physically disabled class such as the visually impaired. They do not have packages that are designed specifically for the visually impaired and operate with the mindset of catering their services to physically fit travelers. Government organizations make an attempt to provide inclusivity for such people by having braille inscriptions in public tourist attractions and frame a guideline for private companies to do the same. As a large proportion of tourists with disabilities have impairments that are not visible, organizations must take necessary steps in the right direction by investing more time and money to at least make an effort in improving the travelling conditions of such people. Not only will it lead to more business for them but also provide the visually impaired with an authentic and memorable travel experience where they do not feel left out.

1.2 Devnar School for the Blind

The Devnar Foundation was established on November 1, 1991 with four students in one room. Over the course of 17 years, the school has developed to its current stature with 350 students, housed in a three-story building owned by the Foundation. This extraordinary growth is due to the unquestionable ability and enthusiasm of the

founder and his wife, conscientious staff, numerous philanthropists and sponsors. Devnar School is currently rated as the best institution for the Vision Challenge in India with students aspiring to peak achievement, so far this has not been possible for the kids. Devnar School was founded in 1992 by Dr. A. Saibaba Goud, a leading Indian ophthalmologist, who also received the National Prize of Dr. BC Roy in 2004 for translation services and also for his outstanding service in the field of medical and social relief. Devnar School for the Blind actively organizes trips, outings and outbound trips for their students. The students are made to participate in events organized outside their school where they would be taken and also would be indulging in leisure and recreational activities at the destination. They also organize and sponsor travel to other states for students who participate in sports competitions and events. Leisure tourism and outbound trips are not a frequent affair at the school considering the fact that a majority of the student's hail from rural areas and do not necessarily have the kind of funding in order to undertake leisure travel, which is one of the reasons why Devnar school for the Blind does not frequently organize it outside of Hyderabad. However, the students have been taken to destinations like Golkonda Fort, Birla Mandir, Charminar, etc. as part of leisure tourism and excursions where they would get to know more about the city, they live in. Otherwise, there are not many initiatives being taken by the school or the management to try organizing outbound/leisure trips for the students.

1.3 Challenges of Sensory Tourism for The Visually Impaired

Children love to explore new places and gain new experiences, but visually Impaired children often have to miss out on such opportunities as most of the places are not equipped to accommodate the needs of such people. Young people with visual impairments face participation problems most often with respect to mobility, life at home, interpersonal interactions and relationships, the main aspects of life and leisure activities. The environment in which they reside plays a central role as either a barrier or mediator of participation (Salminen & Karhula, 2014). Places of attractions such as museums, zoological parks and public transportation services, pathways, etc. are not friendly to such kids with special needs and fail in providing a fulfilling experience to them and often make the kids feel left out. Furthermore, they also cannot visit amusement parks because of a greater risk when it comes to high thrill rides like rollercoasters, as well as not motivated enough to actually experience water sports and water rides. When asked to such kids as to what problem they face, the most common response apart from the lack of amenities is that public unnecessarily express sympathies and make them feel alienated when the truth is that they do not want to be constantly reminded of their shortcomings but just want a chance to visit new places without any obstacles and enjoy the places they visit.

Few of the challenges of sensory tourism are that, it has not yet been recognized by private ventures and the lack of effort by the government to implement stricter policies and make organizations follow mandatory guidelines. Furthermore, the lack of technological implementation makes many rules and regulations as well as amenities

obsolete both for the organizations as well as the tourists. There is also a sense of sympathy that can be very disrespectful for the visually impaired since they feel that it distinguishes them from people and makes them the "odd one out" whereas they just want technology and facilities to be developed to an extent where they could actually travel independently without feeling alien to their surroundings itself.

The main reasons why people with vision impairment do not take up much travel is because of the difficulties such as navigation, information accessibility and the physical environment (people and vehicles around them) that they face (Lam et al., 2020). Apart from this visually impaired do not take up frequent travel since it requires additional effort from their side to access easily available information of their surroundings. Furthermore, organizations also do not take initiatives to even try to distinguish the visually impaired from the normal population and give them a better experience. Another challenge is the unavailability of a knowledgeable person or guide dogs for such people at tourist spots. There are also challenges that woman with visual impairments face when it comes to menstruating during travel, not knowing where/how to dispose of pads/tampons, lack of guidance at washrooms and not providing dustbins.

1.4 Comparison of Travel Services for visual impaired tourists between India and other Countries

Table 1: Comparison of Travel Services

Tour Operator	Rising Star Tours and Travels	Easy Access Travel	Responsible Travel	Cocky Guides
Base Country	India	USA	UK	Australia
Average Pricing	10-15% of total expenses are charged.	2,58,000 INR per person	Starting from 4,327 INR	44,720 INR per Person
Website user friendliness	Website is blank	Seamless experience with clear itinerary details along with pricing and useful tips and information.	Well organized with itinerary details and pricing.	Seamless experience with itinerary description along with pricing.
Flexibility in Packages	Packages only for visually impaired people on group tours. No individual/family packages.	Individual as well as group tours organized. Family tours can be availed on customized basis.	Individual as well as group tours organized. Family tours can be availed on customized basis.	Group Tours only. Itinerary is customizable based on disability.

The stark difference between the services and sheer lack of facilities offered by other countries and India from the above mentioned table is very evident. The website of the tour operator who provide services for visually impaired tourists was blank and only packaged tours are available so it reflects the ground reality in Sensory Tourism for the Visually Impaired adults, and the children.

1.5 Need for Sensory Tourism for The Visually Impaired

There are many studies that were conducted regarding tourism for people with disabilities, but most of them have clearly ignored a few segments of the disabled population like the visually impaired. There has been little to no attention given to visually impaired people regarding their basic rights in itself in Telangana, leave alone travel and tourism for them. For the students of Devnar School for the Blind, tourism is considered as a luxury. It can be out rightly mentioned that tourism as a concept lies in the social needs when one thinks of Maslow's hierarchy of needs and the students are struggling to barely cross the safety needs level; whereas other "normal" tourists consider tourism to be a necessity since they function very well in the social needs level at the least or higher. Tourism being a necessity for other tourists and students and it being a luxury for the students of Devnar School for the Blind says a lot about the existence of sensory tourism and the significance of tourism for these blind students in Telangana. That is not the case with other countries considering the fact that their governments have taken initiatives to include visually impaired people as tourists and make them feel recognized. There is a lot of technological advancement and enhanced facilities for visually impaired tourists so they could travel independently.

There is need to understand the challenges faced by visually impaired students during travel, and other side of the coin i.e. the challenges faced by teachers and management staff in organizing travel for the said visually impaired students. There is also the need to know from the students how tourism could be improved for them, as they would be able to guide one to the solutions and actions or initiatives required to be taken in order to make travel easier and accessible to them.

2 Literature Review

Architecture being the tangible basis for the smooth functioning of society, does not consider and include concepts for people with disabilities, even today. Especially in India, various aspects like stereotyping, social stigma, ignorance, and poor understanding of the abilities and needs of the disabled have continued to marginalize and alienate this group of users from mainstream development. However, there is not enough research done so far on disability issues in Architecture in India (Murugkar et al., 2020) The quality of the tourist experience is often linked to the feeling of inclusion or exclusion of tourism participants in terms of access to information, experience of orientation, travel with a guide dog and the knowledge and attitudes of other participants. The tourism industry and the local communities must understand the

multisensory nature of the tourism experience if quality accessible experiences are to be available to visually impaired tourists (Small et al., 2012).

The participation of visually impaired people in tourist activities results from a continuous and interactive process that is formed on the basis of multiple factors, with either positive or negative effects within every individual. Personal context, disability and social environment are the aspects that affect different stages of the process (Devile & Kastenholz, 2018). There was a sheer lack of acknowledgement of the visually impaired market in the tourism sector and the tourists' ability to undertake tourist activities (Pujol Fernández & Vergés Ubach, 2018). The accessibility of information needs to be assessed, especially on tourism website for visually impaired tourists If online information is not compatible with assistive technology access, it can leave visually impaired tourists angry at wasted time and effort, leave a task or ask for help (Kumar & Motupalli,2015).

The obstacle detector can improve one's mobility performance with the help of a white cane. The obstacle detection device should be used along with the white cane in order to achieve the best speed of movement along with body protection (Lee et al., 2014). Lam et al. (2020) mentioned in their study that an academic and industrial interest worldwide, along with the curiosity to understand the role of technology in tourism has come up due to the increasing concerns about disability, accessibility and universal environments for travel and destinations. Families of blind or partially sighted children may not recognize many of the skills that their children can learn during family travel (Agapito et al., 2016). They may also not have considered how they can support the development of their child's travel skills, long before he or she is expected to travel alone as an older student or teenager. Rosenblum & Corn (2003), in their article offers recommendations that will help families to promote their children's independent travel.

Groups of children who lost their sight early in life performed less well on various spatial tasks than sighted children or children who lost their sight later in life. Finally, a number of methods were discussed to encourage visually impaired children to use suitable coding systems for the construction of flexible and integrated cognitive maps (Ungar et al., 1996). Further study done by (Marston & Golledge, 2003) state that there is a lot of demand and motivation for taking part in activities and travel that is not being met with the right amount of supply and that there is also a sheer lack of relevant information regarding it. Many groups in society continue to experience and suffer what could only be called 'traffic disadvantage'. The importance of considering such travel experiences becomes evident and is paramount to the development of a barrier-free life (Hine & Mitchell, 2001). While white sticks and guide dogs can assist visually impaired people to avoid obstacles and some aspects of safe passageways, many of the difficulties these people face when navigating indoor tracks, familiarity has yet to be resolved (Dias et al., 2015).

The long-term goal of the accessible tourism movement is to create a tourism environment in which all tourists, regardless of their individual needs, age, size, can

actively participate. This objective indicates that the definition of tourism should not be limited to the definition of tourism statistics. To achieve the goal of accessible tourism the entire service chain must be accessible (RudigerLeidner, 2006). Dora Agapito, Julio Mendes, Patricia Valle (2013) conducted their study with the aim to contribute to the conceptualization of the sensory dimension of the tourist experience by discussing its theoretical basis. Their paper discusses the role of the senses in the design of the tourist experience and identifies important topics related to studying the sensory dimensions of the tourist experience, examining opportunities, future research.

Electronic travel aids, which transform the visual stimuli of the environment into another sensory modality, have been shown to help visually impaired people travel with greater mental comfort and independence. People Sensor is an electronic travel aid designed to address two important issues for the visually impaired: unintentional contact with other pedestrians and objects and talking to a person who is no longer within hearing. The device uses pyroelectric and ultrasonic sensors to locate and distinguish between animated and inanimate obstacles in the detection path. The distance between the user and the obstacle, together with the nature of the obstacle, is transmitted by modulated vibrotactile feedback. Armed with advanced knowledge of the presence and location of objects and people in the environment (Ram, & Sharf, 1998).

This degree of mobility is essential for many species, as most animals survive through movement at one level or another, and this is no different for humans and many of their activities. Humans are made possible through the ability to move from one point to another. Tourism is then essential not because of human mobility, but because of the advantageous aspects inherent in this mobility. These signs often include graphic signs, colored lights, road markings, printed public transport information, etc. preferred means of conveying useful information related to each other travel activity. each other for users. Alternate forms of information display, however, cater to different sensory preferences, however are very rare, and therefore tourists with visual impairments will face a significant disadvantage compared to their peers. However, we believe that meaningful suggestions for such supports can only be made if the mobility task itself is properly understood about the situation of the visually impaired (Harper & Green 2000).

In recent decades, a number of portable or wearable navigation systems have been developed to assist visually impaired people while navigating in familiar or unfamiliar, indoor or outdoor environments. There are three main categories of these systems: electronic travel aids, electronic orientation aids and positioning devices. This article presents a comparative survey of portable / wearable barrier detection / avoidance systems in an effort to inform the research community and users about the capabilities of these systems and advances in assistive technology for the visually impaired. The survey is based on various functions and performance parameters of the systems, which classify them into categories and provide qualitative-quantitative measures. Finally, it offers ratings (Dakopoulos, & Bourbakis, 2009).

Visually impaired people often have to rely on the assistance of sight guides at airports, which prevents them from having an independent travel experience. To learn about the existing airport accessibility perspectives, Guerreiro, Ahmetovic, Sato, Kitani, & Asakawa (2019) organized two focus groups that discussed in-depth their needs and experiences and discussed the potential role of assistive technologies. They found that standalone navigation was a fundamental challenge and seriously affected their overall experience. As a result, they equipped an airport with a Bluetooth Low Energy beacon-based navigation system and conducted a real-world study where users navigate routes related to their travel experience. They found that despite the challenging environment, the participants were able to complete their routes independently. It doesn't offer a few navigation errors and provides reasonable timings. The ability to navigate independently in an urban environment is an exciting necessity for all of us.

3   Research Gap

Various studies on enhanced mobility, challenges of visually impaired people during their mobility and technological advancements to make travel easier for them were conducted. However, there are only few studies throw light on challenges faced by visually impaired students who want to travel and how improved technology facilitates travel of visually impaired students. Furthermore, there are no studies conducted on sensory tourism in Telangana. So, it is essential to understand the challenges faced by visually impaired students of Devnar School for the Blind and to identify the technology and infrastructural requirement for their better travel experience.

4   Methodology

The objective of the study is to identify challenges and issues faced by visually impaired students when they undertake travel and the challenges and issues faced by their teachers in organizing travel for them. This study also intends to identify the facilities and infrastructure required for visually impaired students to undertake travel and make it easier for them. Based on convenient sampling method 5 visually impaired students, 4 teachers and 1 management staff, all part of Devnar School for the Blind, Hyderabad, were selected to conduct the study. Since its qualitative research, the researcher has developed an open-ended question based on objectives of the study and questions were validated by the experts. Later phone calls were made to the founder of Devnar School for the Blind seeking permission to conduct the interviews personally. Students, teachers, and management staff were contacted according to schedule of their convenience and were explained about the scope and objectives of the study. Each student was asked a standardized set of questions in the same order to obtain the related data. Teachers and management staff were asked different set of questions in order to obtain the related data. Interview was conducted among visually impaired students to understand the issues and challenges while undertaking travel organized by their school and the possible improvements that could be made.

Interview was conducted among teachers and management staff to understand the issues and challenges in organizing travel for the visually impaired and the possible improvements that could be made.

NVivo software is used to conduct qualitative data analysis. Thematic text analysis can be used to analyze the qualitative information and to systematically gain knowledge and empathy about a person, an interaction, a group, a situation, an organization, or a culture. Since interaction was made with students, teachers and management staff about issues and challenges to undertake and organize travel for visually impaired and how the improvements could be made, thematic text analysis was used to analyze the data.

5 Analysis and Results

Based on interview with the students, teachers and management staff at Devnar School for the Blind, the results and discussion highlight some of the issues and challenges that hinder facilitating comfortable and inclusive travel for visually impaired students and throws light on possible suggestions and improvements required in order to motivate visually impaired students to undertake travel.
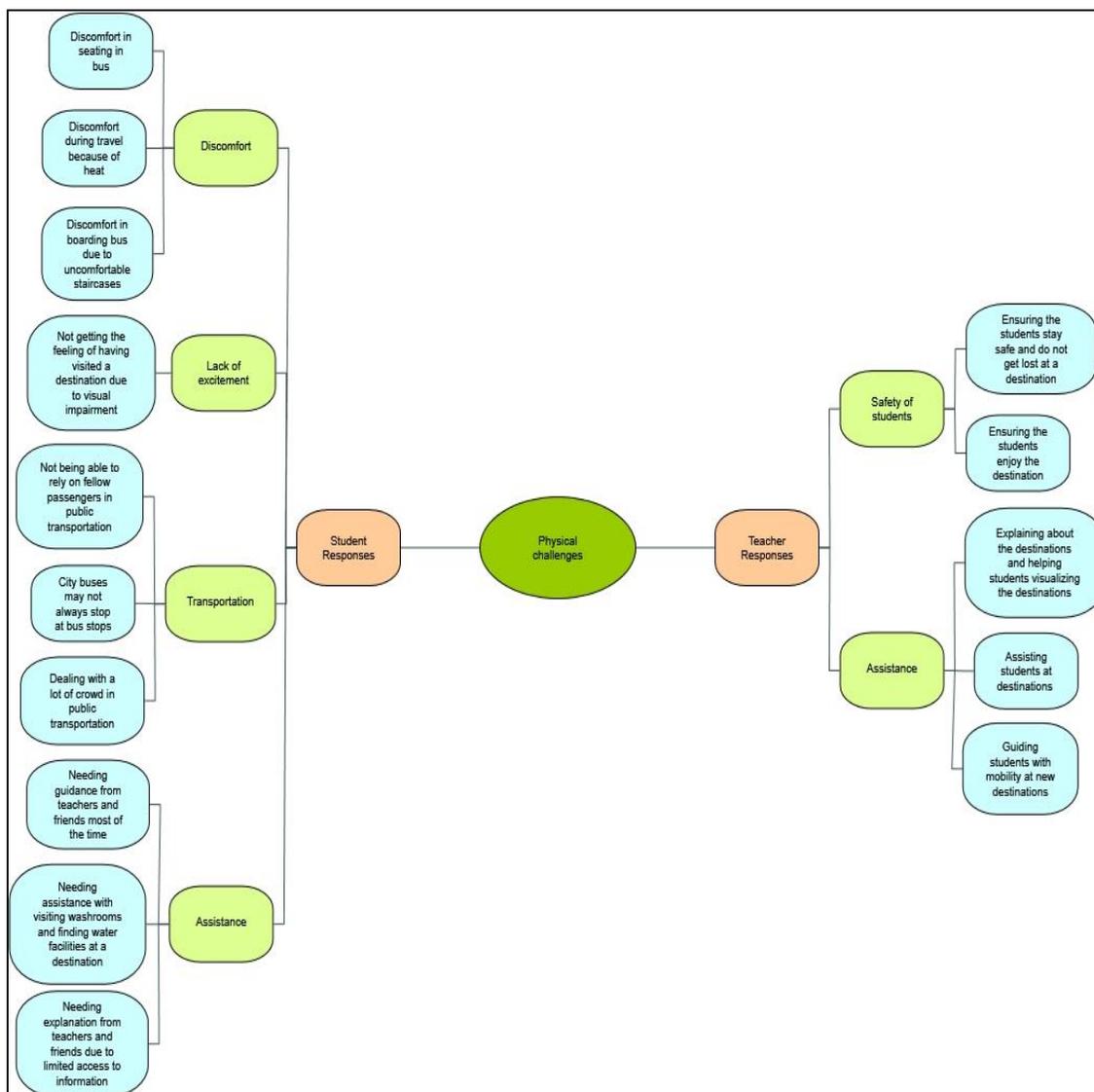
Figure 1: Physical challenges faced by students and teacher when undertaking and organizing travel

The above mind map represents the factors that physically stop the students for undertaking tour and prohibit teachers and management to organize tours for their students. The students feel discomfort, lack of excitement, mobility and assistance are the reasons that avoid them to take part in the tour. On the other hand, safety of students and lack of assistance at the destinations are the prime concerns for the teachers and management staff to organize tour.

Figure 2: Mental and emotional challenges faced by students and teacher when undertaking and organizing travel

The above mind map represents the factors that are mentally and emotionally challenging for visually impaired students for undertaking tour and teachers and management staff for organizing tours. The students do not feel included as tourists due to lack of itineraries supporting sensory tourism and often tend to isolate or alienate themselves when traveling with people who do not have the same disability as them. The students intend to travel independently without taking assistance from other people but are unable to, as there is a lack of facilities and technology in India. It is the reason why a majority of the students have never gone to any tour outside Hyderabad. The teachers lack awareness regarding the significance of activities to improve mobility, social skills, independence, etc. of visually impaired students and hence struggle with organizing interesting or interactive activities for these students during any tour. All students are willing to travel but only with their other visually impaired friends since they all belong to the same school and know how to help each

other. The students are not motivated to travel with other people because they feel they are the "odd one out" and tend to feel alienated because of the privilege an average tourist has.
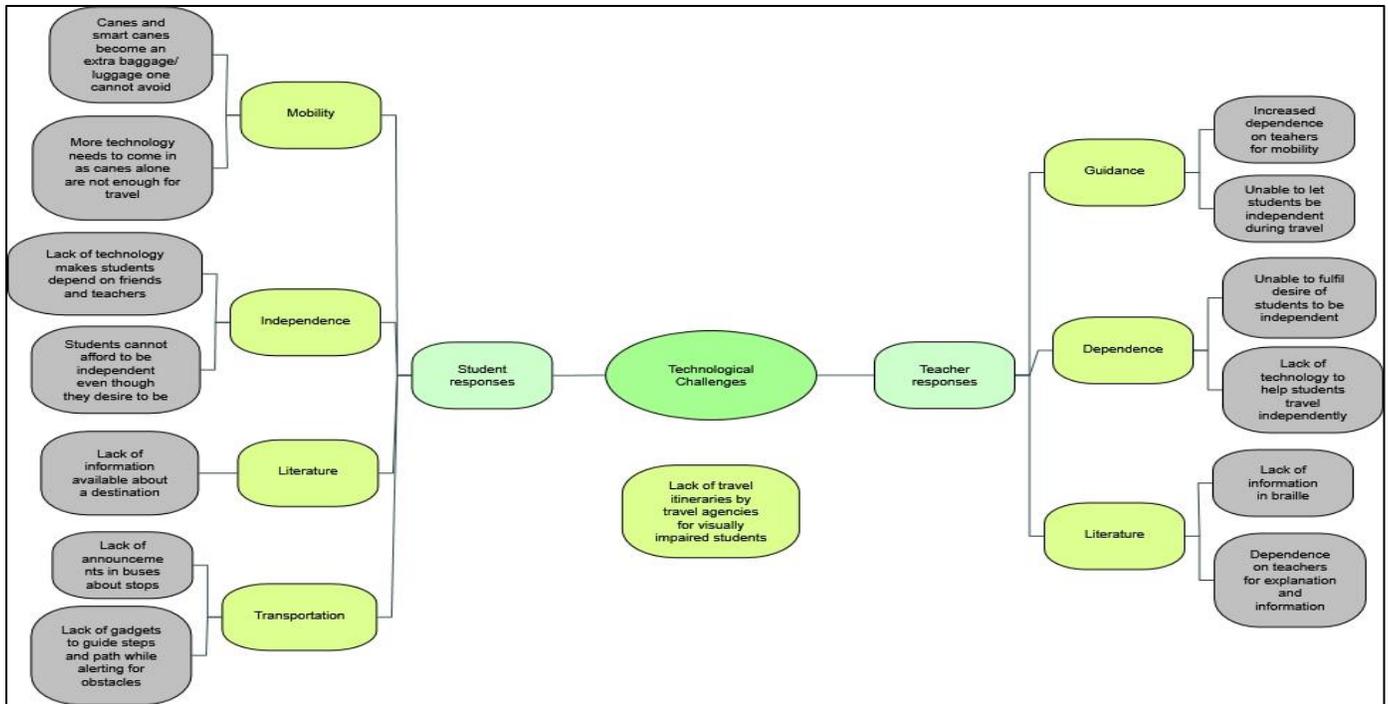

Figure 3: Technological challenges faced by students and teacher when undertaking and organizing travel

The above mind map represents the factors that are technologically challenging for students for undertaking tours and teachers and management staff for organizing tours. Lack of availability of smart canes, self-guiding mobility technology, lack of audio related information about the destination, lack of announcements in the buses, and lack of sensory gadgets that avoid obstacles are the citing reasons of the students for not taking tours. The above floating idea is taken into consideration regarding the availability of travel itineraries by travel organizations and tour agencies that accommodate the travel of visually impaired students. This aspect is a floating idea since it may or may not affect or influence the cause of technological challenges that the teachers and management staff face when organizing travel for visually impaired students.
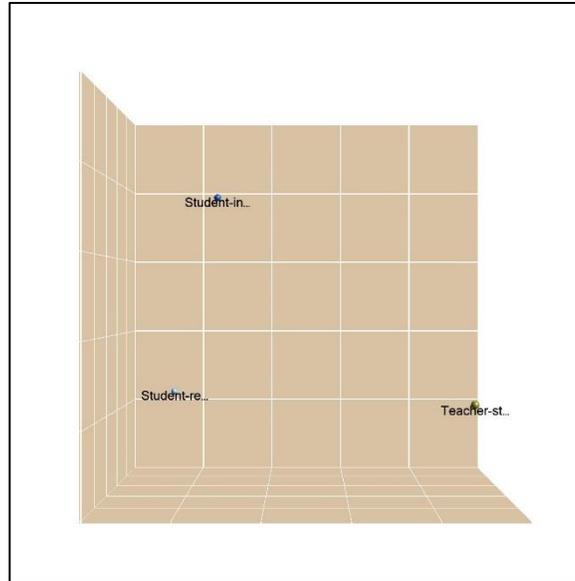
Figure 4: Student inclusion and recognition as a tourist – Node Cluster Analysis

Table 2: Student inclusion and recognition as a tourist – Pearson's Correlation Coefficient

Node A	Node B	Pearson Correlation coefficient
Nodes\\Student-recognition as tourist	Nodes\\Student-inclusion as tourist	0.578863
Nodes\\Teacher-student inclusion as tourist	Nodes\\Student-inclusion as tourist	0.127031
Nodes\\Teacher-student inclusion as tourist	Nodes\\Student-recognition as tourist	0.051009

The above cluster analysis and correlation coefficient between the nodes "student responses on student recognition as tourist", "student responses on student inclusion as a tourist", and "teacher responses on student inclusion as a tourist" reveals a difference of opinion between students and teachers on each component. The above tests were done in order to determine the degree of understanding between teachers and students with regards to student recognition and inclusion as a tourist during travel. The above test reveals that there is low positive correlation between teachers and students' responses regarding student inclusion and recognition as a tourist, which indicates that the teachers recognize that the students do not feel recognized or included as tourists but do not entirely agree/relate with them on the same.
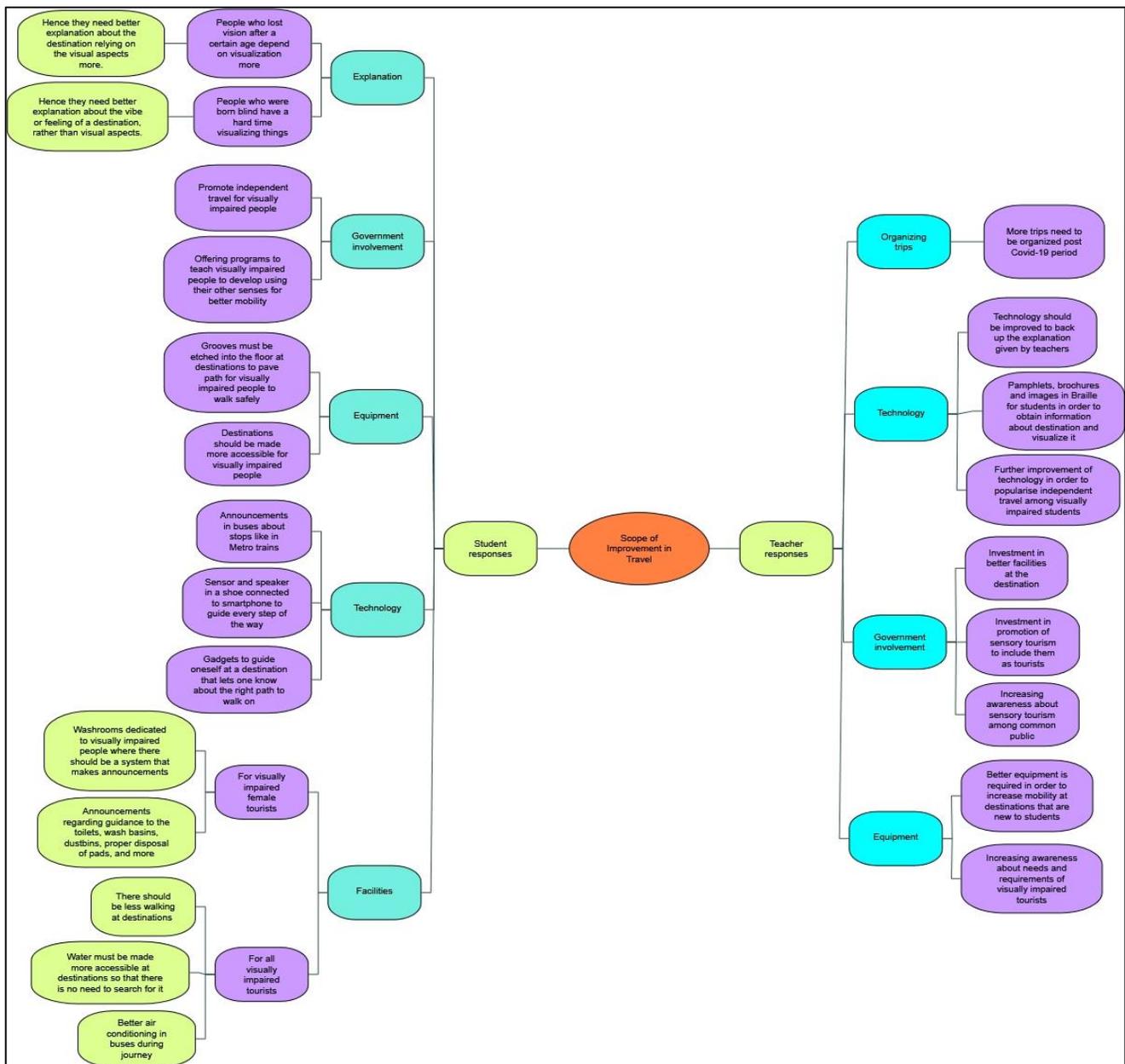
Figure 5: Scope of improvement in travel for the visually impaired

The above mind map represents the factors that require focus regarding improvement in travel that needs to happen in the tourism industry in order to enhance travel experience for visually blind students. The students feel that tourism would improve if there was an improvement in government involvement, equipment, technology and facilities. On the other hand, teachers felt that tourism would improve if there was an improvement in organizing the trips, technology, government involvement, and equipment. Different students have different sorts of visual impairments and their needs and requirements differ accordingly. Their individual

needs and requirements must be recognized and necessary facilities must be provided to them so as to facilitate easier travel experience for them, irrespective of the kind of visual impairment.

Figure 6: Student satisfaction and challenges w.r.t transportation and destinations

The above mind map represents the satisfaction and challenges that the students face with respect to the current mode of transportation and the kind of destinations they are usually taken to. The above mind map also represents the satisfaction and challenges that the teachers face with respect to the current mode of transportation and the kind of destinations that teachers usually take students to. There is also a gap between the teachers and students at the school in the sense that the teachers believe the students are completely satisfied with their current ways of executing travel although they do recognize that students have a hard time in guiding themselves, gathering information, etc. Apart from the aforementioned superficial difficulties, there are also many underlying issues that exist that the teachers do not necessarily

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seems to be noticed, unless their child is visually impaired themselves. The teachers often find it hard to describe and explain destinations or attractions to the students and making them visualize it, especially the ones who were born blind since they cannot fully grasp the idea of visualization just through explanation.
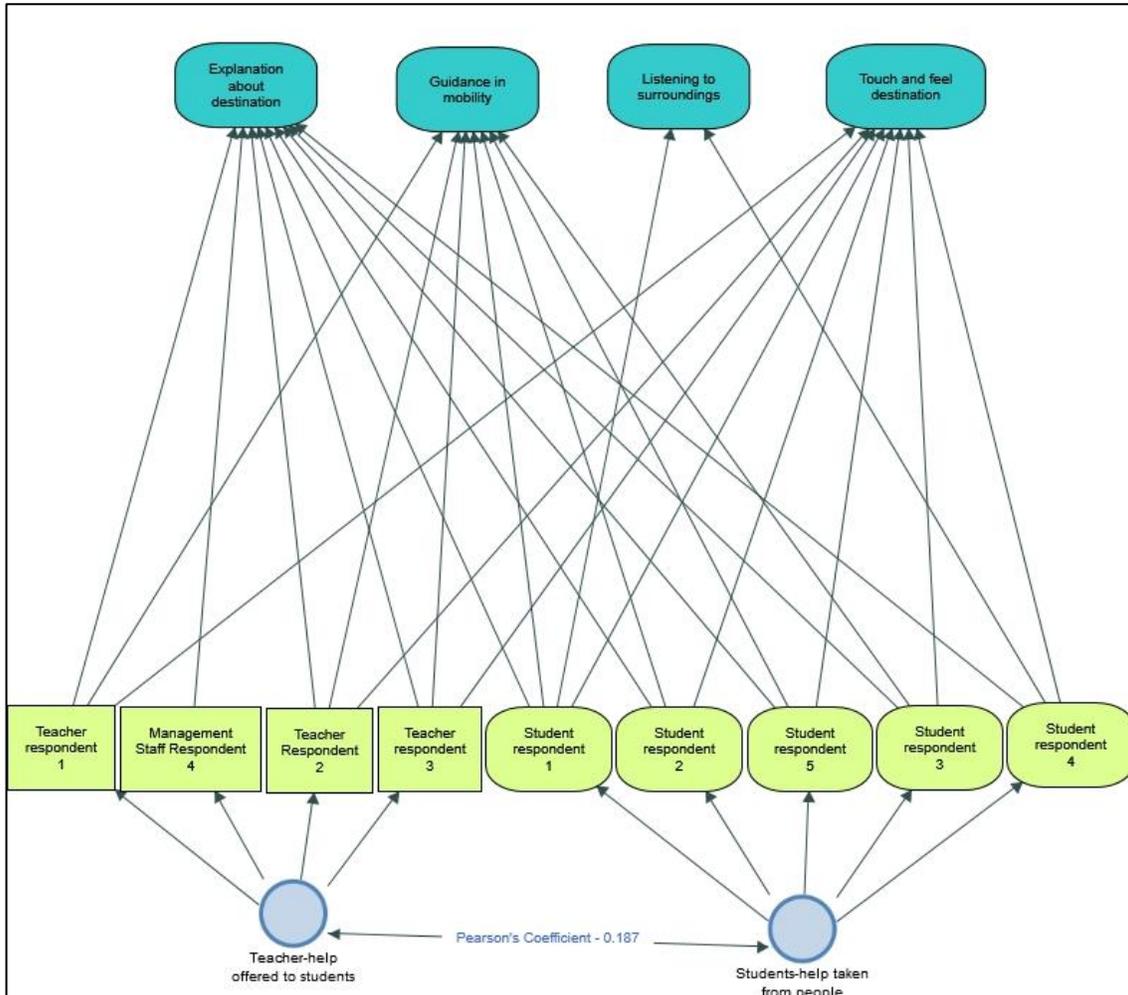

Figure 7: Help and assistance offered to students from people during travel

The above concept map represents the responses of all 9 respondents about the kind of help that teachers offer to visually impaired students during travel and the kind of help that visually impaired students tend to take from their friends and teachers during travel. The respondents felt that the explanation about the destination, touching and feeling the destination, guidance in mobility were the factors used to help students "see" a destination, in the order of significance. The low positive Pearson's Coefficient value between teacher responses about help offered to students and student responses about help taken from teachers and friends indicates that the teachers do offer their help to the students but it is not being met with the actual requirement that the visually impaired students have. This comes from a lack of understanding of the issues faced by the students and the extent and kind of help required for them during travel.
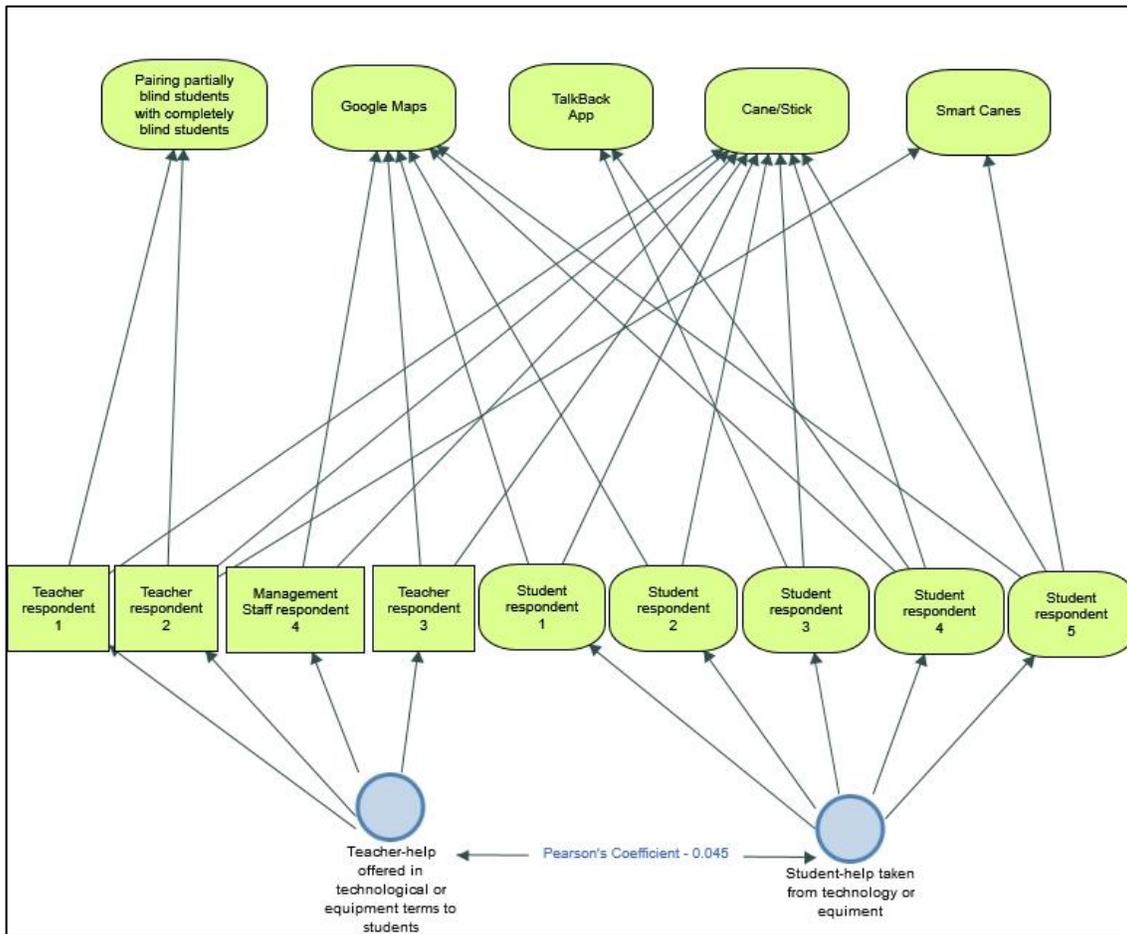
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Figure 8: Help and assistance offered to students in terms of technology/equipment in travel

The above concept map represents the responses of all 9 respondents about the kind of help that teachers offer to visually impaired students during travel and the kind of help that visually impaired students tend to take, in terms of technology and equipment during travel. The respondents felt that the use of canes/sticks, google maps, talkback app, pairing partially blind students with completely blind students and smart canes were the factors/equipment used to help students "see" a destination, in the order of significance. The low positive Pearson's Coefficient value indicates that the teachers are under the impression that students are offered adequate technological help and adequate equipment during travel but the students on the other hand feel that they severely lack adequate help in terms of technology and equipment.
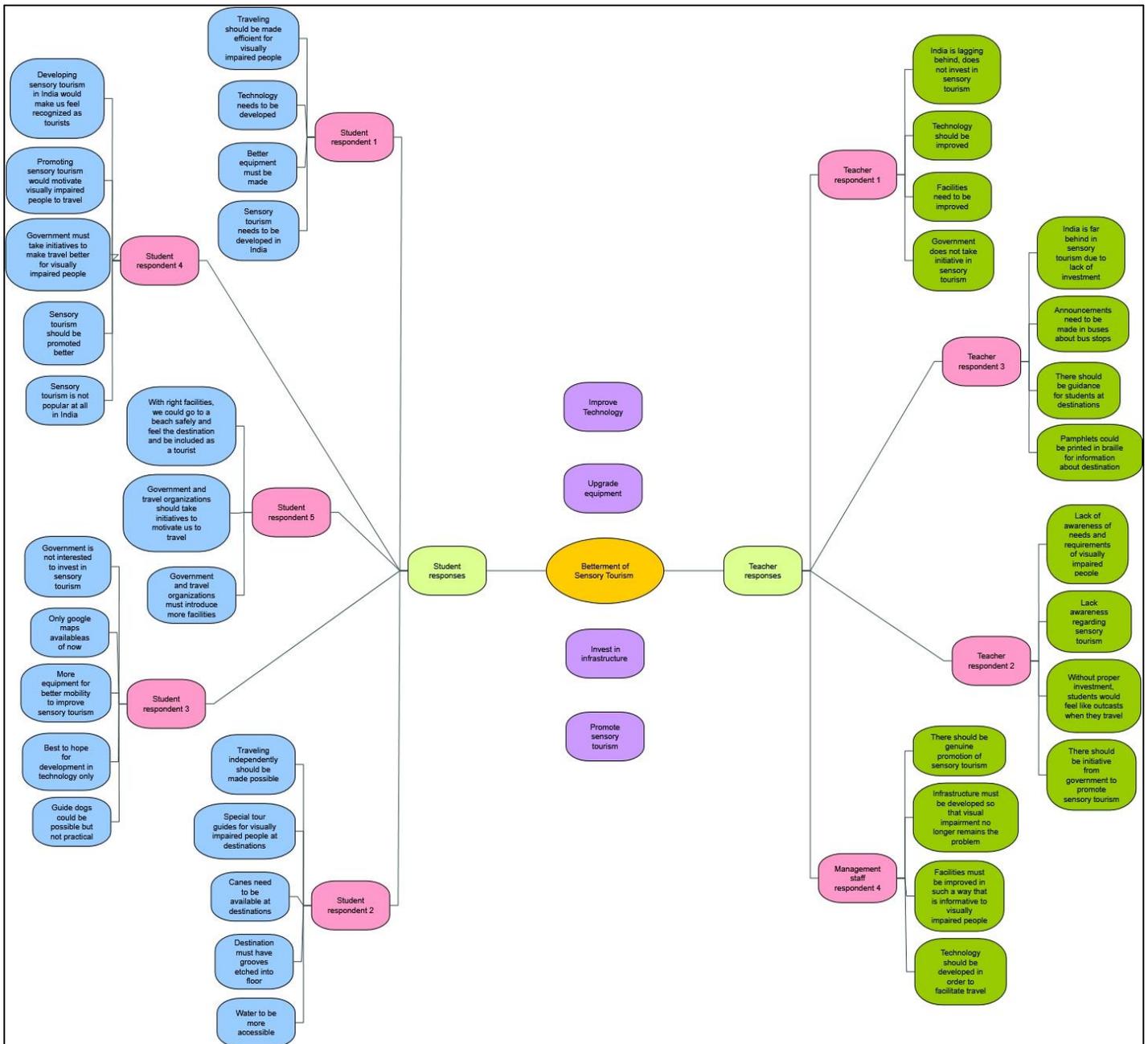
Figure 9: Betterment of Sensory tourism in Devnar School for the Blind and in India

The above mind map represents the ways in which sensory tourism could be made better in India and at Devnar School for the Blind, in the words of all the 9 respondents. The above methods and suggestions could be clubbed and categorized into four broad suggestions that have been mentioned as floating ideas in the above mind map, like improving technology, upgrading equipment, investment in infrastructure and promoting sensory tourism. The teacher and management staff responses reveal that there is absolutely nothing being done in order to improve Sensory Tourism at the school and in India, when compared to other countries and

where they stand in terms of popularizing Sensory Tourism. Sensory Tourism as a type of tourism is still unexplored area in the industry and needs to be popularized. There should be an initiative from the Government regarding facilitating travel for visually impaired people. There were many suggestions and methods given by both teachers and students in order to improve sensory tourism, for instance, one of the student vividly responded that, "With the current technology, I feel google maps is the best thing right now for us to travel, because I don't really believe that India would put in the effort and investment to develop sensory tourism here, when compared to the advanced technology that abroad countries have. There are guide dogs in other countries but I am not entirely sure about to what extent it might work given that we would have to train the dog, take care of it and maintain it, considering the general financial status of visually impaired people here. So, I feel it is best to hope for some development in technology itself. I have this idea in my mind that would make travel easier for visually impaired people. One could put in a sensor in the shoe that I wear, with speakers in it that would guide me on my way just like how google maps guides me, and it could also tell me which direction to go to, how long it will take me, if there any obstacles in my way, etc. That would really improve sensory tourism in India in my opinion, making it easier for mobility."

6   Discussion

In this study, mind maps and word clouds have been used to point out the issues and challenges that visually impaired students face when undertaking travel and the ones that their teachers face when organizing and executing travel for them. The figures also throw light on the facilities, infrastructure and technology required for the visually impaired students in order to undertake travel and better experience tourism. It also helps in identifying how sensory tourism could be made better in India and the kind of technology, equipment and facilities that the visually impaired students currently have access to when undertaking travel that is organized by Devnar School for the Blind.

The current study is supported by Euginia Devile and Elisabeth Kastenholz (2018) as they mentioned the factors that constrain visually impaired travel decisions, try to understand how visually impaired individuals adapt, negotiate perceived and actual constraints, and become active travelers. The participation of visually impaired people in tourist activities results from a continuous and interactive process formed on the basis of multiple factors, with either positive or negative effects within each person. Personal context, disability and social environment are the aspects that affect different stages of the process.

7   Suggestions

Sensory Tourism as a niche type of tourism is yet to emerge into light in the tourism industry in India. The tourism and hospitality industry and the government are yet to realize the ability of Sensory tourism to increase tourist inflow to India. India as

a country has not been able pay heed to the young market and potential tourists for sensory tourism in domestic travel itself, which clearly indicates that there could be even bigger a scope for international travel as part of sensory tourism. Government needs to focus on facilitating travel for the visually impaired and to promote it in such a way that it would motivate visually impaired people to undertake travel.

Tourism as a concept must be just as accessible to visually impaired students as much as it is for any other average tourist without them feeling alienated or out of place during travel. A development in technology and facilities should help visually impaired people in better mobility with reduced risk of an accident or a mishap. Tour operators and travel agencies must create and introduce itineraries that facilitate and promote individual/group travel for visually impaired people while they cater to the needs and requirements needed for the tourists. There should be tour packages dedicated to sensory tourism and tourism for the blind including activities that facilitate enhanced travel experience for visually impaired people when they undertake travel.

This research mainly studies the challenges faced by visually impaired students when undertaking travel and the kind of challenges teachers face in organizing and executing travel for these visually impaired students. The school needs to organize better trips/outings than they are doing as of now in order for the students to be considered as tourists. However, that cannot happen without the right kind of facilities, technology, and help from government through investment and support while they recognize the fact that even visually impaired students deserve to travel just like any other tourist would and that they too have the same desire to visit new destinations just like any other tourist would.

There should be pamphlets distributed at the destination in braille for visually impaired tourists to get information about the destination they have visited. Public transportation must have announcements about bus stops and the number of stops, etc. so that visually impaired students could use public transportation independently without seeking assistance from anyone. There should be separate washrooms dedicated for the use of visually impaired people where announcements could be made regarding the number of steps to the washbasin, dustbin, toilets, and more so that visually impaired people, irrespective of gender, could use washrooms at destinations without any assistance.

In order to guide themselves better, there could be grooves etched into the floor at destinations that could pave a path for the visually impaired tourists which would help them in getting around the place better and make it more accessible for them, meanwhile promoting and motivating them to travel independently. Many such developments need to be made in order to make visually impaired people look forward to traveling and thereby popularize sensory tourism in the country, on a global scale.

One could obtain support from the government regarding visually impaired travel facilities and arrange for collaboration among social media influencers so as to create

awareness and thereby normalize visual impairment and eliminate the stigma that exists in the society, and eventually have that change lead the government to invest more in sensory tourism development and thereby facilitate visually impaired people.

The visually impaired students could have virtual reality sessions arranged ahead of any trip that they would be undertaking before actually going there so as to reduce the fatigue and make them more confident and independent while exploring the destination in real life later. This will not only help them in reducing fatigue and low self-esteem, but also motivate them to explore more places through VR and want to explore more places, thereby popularizing and normalizing travel and tourism for visually impaired students.

E-Hailing is another concept that has become rapidly famous and more helpful for everyone, especially people with visual impairment. With the TalkBack app on their phones, they could book a ride and travel to any place in the city. Something that could make it revolutionary in the world of sensory tourism is the introduction of the concept of special transport packages which would include a special trained driver to cater to and assist visually impaired people with their journey as a tourist.

Introduction of Artificial Intelligence such as integrated mobile apps and GPS would help visually impaired people guide themselves better and would provide them with an added advantage and reason to continue to stay motivated to travel and experience the feeling of being a true tourist at heart. Implementing this would benefit sensory tourism as a whole and play a potentially crucial role in the development of the same.

8 Conclusion

The study was aimed at understanding challenges faced by visually impaired students studying at Devnar School for the Blind when they undertake travel, understanding challenges faced by teachers and management staff working at Devnar School for the Blind while organizing travel for visually impaired students and also to identify the facilities and infrastructure required for visually impaired students to undertake travel and make it easier for them. Sensory tourism is a type of niche tourism that still remains unexplored and unrecognized. The visually impaired students have only visited major attractions in Hyderabad and have not been outside Hyderabad in the name of a leisure and recreational trip/outing. They face various physical, mental, emotional and technological challenges that stop them from undertaking travel independently. The teachers face various challenges while organizing trips/outings for the students given the special needs and requirements that have to be arranged in order for them to travel successfully.

For visually impaired students to travel like any other tourist, there are various factors that come into play in making it happen like technological advancement, promotion of sensory tourism, government involvement, investment in equipment, to name a few. The visually impaired students have the desire to travel but do not have

the access to it, in terms of independence, access to information, guidance, social stigma, fear of socializing which are a few among the many underlying issues that hinder travel experience for the visually impaired. The study reveals that neither the students nor the teacher or management staff is completely satisfied with the current condition of tourism at Devnar School for the Blind.

9 About the Author

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