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**AN EXPLORATION OF MINDFULNESS TRAINING FOR
TOUR GUIDES AND THE SUSTAINABILITY OF
TOURISM**

**Thesis submitted by
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Acknowledgements

I can still vividly recall that rainy evening when I finally decided to leave China and move to Townsville. I drove to the Nanjing airport, navigating through three COVID checkpoints over 30 kilometres during a severe period in China, with only two flights at the airport. The scene was reminiscent of a doomsday movie, with authorities patrolling everywhere. What is even more daunting is that I had no idea what the next few years of Ph.D. marathon study would bring, especially at my age, but I knew it was the right choice for my life.

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Completing this Ph.D. thesis has been a challenging yet incredibly rewarding journey. It has been a collective effort, and I am deeply grateful to everyone who has contributed to this accomplishment in various ways. This thesis is dedicated to all of you, without whom this journey would not have been possible.

Statement of the Contribution of Others

Nature of assistance	Contribution	Names, titles and affiliations of co-contributors
Intellectual support	Supervision	Prof. Gianna Moscardo , James Cook University A/Prof. Laurie Murphy , James Cook University
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Abstract

The global urgency of sustainable tourism underscores the need to foster responsible behaviours among tourists, particularly in settings like China where tourism growth is rapid, and the impacts of mass tourism are significant. Tour guides, as a key form of personal interpretation, can potentially play vital roles in influencing tourists and managing destinations through mediation, interpretation, and other skills. Although tour guides have always been seen as important in managing tourists and their actions on site, in recent years there has been an increased interest in the role of tour guides in encouraging sustainability at and beyond visited sites. This is consistent with calls for tour guide training to move beyond practical instrumental skills and to include greater focus on psychological skills and interpretive practices to support more sustainability education and awareness amongst tourists. This research has focused on the possibility of enhancing tour guide performance with respect to sustainability awareness and onsite tourist management using Langer's socio-cognitive mindfulness theory. This theory has been applied in various aspects of heritage interpretation but with a focus on individual tourists.

Langerian Mindfulness, defined as a state of active, new perspective in settings, when applied in tourism, has been shown to enhance visitors' experiences potentially leading to more environmentally responsible behaviour among tourists. To date there has been little incorporation of mindfulness into tour guide training and there have been only a few attempts to focus on sustainability education for tour guides, especially in the Chinese context.

Therefore, this thesis research sought to address three research questions:

Question 1: To what extent does a tour guide training program implementing mindfulness techniques and sustainability education encourage tour guides to become more mindful and to change their interpretive practices to focus more on sustainability at and beyond the visited place?

Question 2: How do interactions with tourists by tour guides who have had mindfulness-based sustainability training differ in their guiding practice from those who have not been trained?

Question 3: If and how do mindfulness-trained tour guides encourage more sustainable

behaviours in tourists?

The study employed a pragmatist research philosophy to explore the problem of sustainability in tourism and tour guides' roles in addressing this challenge. A mixed-methods approach combining quantitative and qualitative research methodologies within an action research framework was further adopted. The research involved two studies:

- the initial study laid the groundwork by examining whether mindfulness training could influence Chinese tour guides' future thinking and intended practices in their guiding, and
- the second study compared guides who had completed the mindfulness training to guides who had not at a single site to examine differences in their guiding practices and tourist responses to these practices.

The first study involved a series of online workshops were conducted with online interactive activities and offline practices. Comparison between pre and post training questions measuring mindfulness, sustainability awareness and intended changes in guiding practice highlighted a significant enhancement in guides' understanding of mindfulness and its application in tour guiding. Guides reported a positive shift in their approach to guiding, indicating an intention to move from traditional methods to more innovative and attentive practices, especially multisensory engagement, and interactive storytelling.

Building on the initial study, the second research study further investigated the integration of Western sustainability principles and mindfulness within the Chinese tour guiding context, specifically within the World Natural and Cultural Heritage area of Huangshan, China. This phase involved comparing two mindfulness and sustainability trained tour guides and two untrained guides. Each of them conducted a two-day tour, focusing on their interaction styles with their tourist groups, which comprised 42 and 57 tourists, respectively. Through participant observation and interviews with each tour guide, the research aimed to assess the impacts of mindfulness training of the practice of tour guides. Trained guides were found to engage tourists more deeply, facilitating greater appreciation for local cultural and environmental conservation through multisensory, novel methods and from a Chinese narrative perspective. The study further revealed that mindfulness-trained guides could better adapt their storytelling and interpretive practices to promote destinations to tourists,

encouraging sustainable actions and responsible behaviour among tourists in their post-trip life.

In conclusion, the thesis demonstrates that integrating mindfulness theory and sustainability knowledge into tour guide training can significantly enhance the effectiveness of guides in promoting sustainable practices and awareness of tourists. This approach not only enriches the tourist experience but also contributes to the broader goals of sustainable tourism, including conservation of resources and respect for cultural heritage. The research contributes to the field by providing a novel approach to tour guide training, emphasizing the psychological and interpretative skills necessary for fostering sustainability in tourism.

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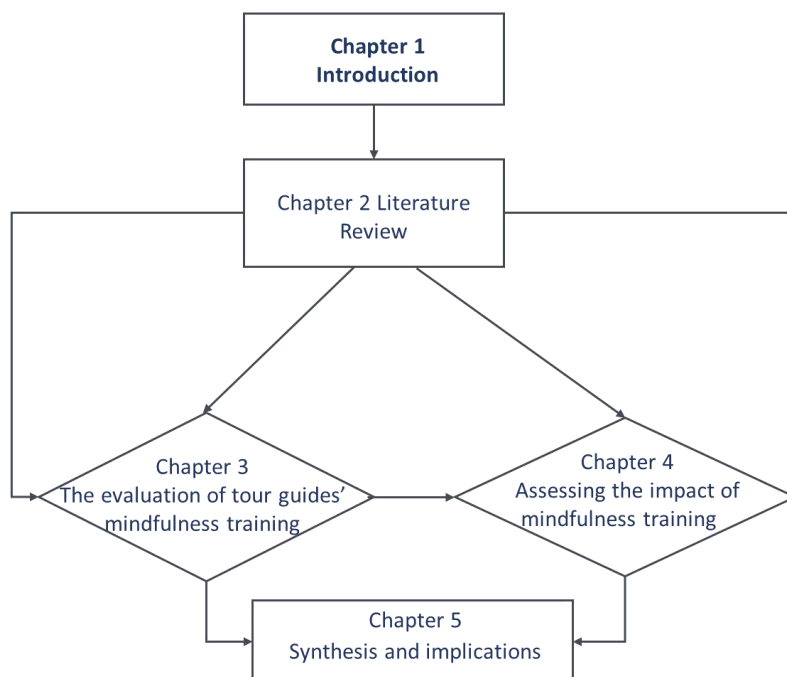
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Chapter 1 : Introduction



1.1 Background

We are living on this planet as if we had another one to go to. – (Goldman Environmental Foundation, 2024)

A longstanding discussion on sustainability exists in the tourism literature. Many authors have proposed that one way to enhance the sustainability of tourism is through seeking and supporting tourists who are more open to sustainable behaviour, attitudes, and values (Budeanu, 2007; León & Araña, 2020; Mobley et al., 2009). Pro-sustainable behaviours of tourists include social altruism, frugality, and pro-environmental action (Holmes et al., 2019). The consumption of local goods and services, and a willingness to sacrifice time and money to support others are considered as socially and economically sustainable options. It is also essential to encourage pro-environmental behaviours (PEB) of tourists, to lessen the negative impacts of tourist activities on the environment and to enhance the quality of the environment (Gössling et al., 2012; López-Sánchez & Pulido-Fernández, 2016). Some studies have indicated that tourists are generally less likely to be environmentally and socially responsible when travelling than in their daily lives (Holmes et al., 2019; Miao & Wei, 2013).

Due to the novel settings and high cost of travel, tourists may be subject to a range of situational factors that inhibit their pro-environmental behaviour and thus they may be less environmentally conscious when travelling (Dolnicar, 2019; Gulati, 2021). Other studies have found that some types of tourists could be more likely to support or accept actions which may promote the well-being of destination communities (Moscardo & Murphy, 2016).

Nevertheless, it is believed that tourism stakeholders should take more responsibility for designing and providing more pro-sustainable products and raising awareness of tourism sustainability for the public (Boom et al., 2021). Balancing the hedonic happiness of tourists with the achievement of less consumption and more protection is a great challenge for all stakeholders in tourism.

In China, tourist responsibility for advocating sustainability has been promoted by the government by implementing the regulation “Tourism Etiquette Rules for Chinese Citizens Travelling at Home”, aligned with the concept of “civilized travelling” (Teng et al., 2021). This obligation requires tourists to engage in appropriate and courteous behaviour at tourist destinations, such as keeping the environment clean and tidy, observing public order, preserving the ecological environment and, protecting historical sites and cultural relics (Liu et al., 2020).

Tour guides can play a significant role in encouraging tourists to behave in a sustainable manner. A tour guide is someone who directs groups or individual tourists around venues or places of interest - such as natural and historic areas, and who interprets heritage in an inspiring and entertaining manner (Chen et al., 2018; Cohen, 1985; Weiler & Walker, 2014). While Weiler (2016) identifies several main elements of tour guide roles, including leadership, mediation, interpretation, and resource management, most research has focused on the function of tour guides in increasing customer satisfaction, and influencing general tourist behaviour (Black et al., 2018; Huang, 2010; Min, 2016).

The influence of tour guides on the sustainable behaviours of visitors can range from direct physical control to indirect control. Physical control includes restricting access to certain

areas, directing only limited numbers of visitors to environmentally fragile places, and enforcing regulations on their behaviours (Güzel et al., 2020). With respect to indirect control, the mediation and interpretation skills of tour guides can raise tourists' awareness of pro-sustainable action (Hu & Wall, 2012; Látková et al., 2017). Tour guides have been shown to positively affect tourists' environmental awareness and environmental protection behaviours through interpretation (Tătărușanu et al., 2021).

In tourism contexts, interpretation is considered a main approach in assisting tourists to understand natural and cultural complexities through its practical education role (Tilden, 1967). Interpretation could be classified as personal and non-personal according to the subject of implementation with tour guides offering personal interpretation (Munro et al., 2008; Weng et al., 2020). Interpretation can help tourists to understand the essential meaning of heritage in order to raise their protection awareness (Finegan, 2019). Interpretation is also considered a potentially effective approach to cope with large numbers of visitors and to modify visitor behaviours (Mason, 2005; Moscardo, 2014). Two basic interpretation strategies used to protect the environment are to inform visitors of the value of heritage, and to encourage visitors to minimize their negative impact on the destination (Nowacki, 2021). Recently, the concept of psychological distance has been applied to evaluate the effectiveness of interpretation. This research indicates that the closer tourists feel to the setting, the more intense their pro-environmental knowledge, attitude, and behaviour (Frías-Jamilena et al., 2022). It has been suggested that personal interpretation by tour guides can encourage closer psychological connections and assist in imparting persuasive information to visitors to develop their understanding of the significance of the destinations, engendering greater appreciation of closeness to, and interest in, protecting the environment (Alazaizeh et al., 2019; Jamaliah et al., 2021).

Although there is some evidence to support the potential role of tour guides in affecting tourists' sustainable understanding and actions, very few studies have examined the effectiveness of different guiding strategies (Howison et al., 2017; Moscardo, 2021). More research into how tour guides might achieve effective sustainability interpretation is needed,

especially from a psychological perspective. This thesis seeks to explore how the socio-cognitive concept of mindfulness might be used to improve Chinese tour guide skills in encouraging their tour group participants to better understand sustainability issues and to change their actions to support more sustainable tourism.

1.2 Research significance

The Chinese tourism industry has developed rapidly both internationally and domestically over recent years. Although the COVID-19 pandemic significantly hindered its growth for about three years, the post-pandemic period has seen quick recovery in both the domestic and international tourism markets. In 2023, domestic Chinese tourist trips reached 4.891 billion, an increase of 93.3% year-on-year and total domestic tourism expenditure was 4.91 trillion yuan, up 140.3% year-on-year (Data Centre of the Ministry of Culture and Tourism, 2024). By the end of 2023, 87 million Chinese tourists had also been reported to travel abroad. Tourism Research Australia, for example, predicted that by 2028, there will be 1.89 million visitors from China, accounting for 16% of all international arrivals to Australia (www.tra.gov.au, 2024). Chinese tourists, both internationally and domestically make a significant proportion of total global tourism activity. While media report the positive economic benefits of Chinese tourism, there have been widespread negative stories of unsustainable or unethical behaviours of Chinese tourists, including complaints about wasting food in restaurant buffets, over-consumption of water and power, jumping queues for public transportation, and littering in both domestic or international travelling (Pearce, 2019). The Chinese government has recognized the great importance of tour guides and within China they work to both guide foreign inbound guests where they act as "folk ambassadors" as well as internal domestic tour groups.

Since the development of mass tourism in the 1990s, Chinese tour guides have played the roles of language translator, service assistant, path leader, as well as cultural interpreter, and economic promoter, similar to those in most other countries (Weiler & Black, 2015). However, Huang (2010), a scholar who once worked in the national tourism bureau and who knows this group of people well, has argued that Chinese tour guides could improve their

proficiency in guiding languages, work ethically to introduce reliable shopping to visitors, foster a good sense of humour, and enhance destination knowledge. The Chinese government provided two main types of training “re-vocational training and in-service training” to all the intended and qualified tour guides. All these efforts were used to help tour guides better manage the millions of package tourist groups and prevent bad behaviour at tourism sites.

Tour guides were highly praised in 2018 by Bin Dai, the chairman of the Chinese Tourism Academy, for "making outstanding contributions in carrying out tourism diplomacy, ensuring service quality, promoting enterprise reform, and industrial innovation and development "(Dai, 2018).(Langer & Moldoveanu, 2000) Despite this praise, [Dai, 2018 #1302] challenges in Chinese tourism, both within and outside the country, persist particularly in fostering sustainable awareness among tourists who are increasingly seeking sophisticated and immersive experiences (Weiler & Black, 2015). In recent times, various media channels in China have also spread negative news applying labels such as “bad” and “dirty” to the occupation of tour guides and this could affect the influence guides could have on the tourists (Li et al., 2020). External factors, notably the COVID-19 outbreak, have also served as significant catalysts for change, altering tourist behaviours and introducing new demands on tour guides (Odeku, 2021). Consequently, some traditional roles of tour guides have become less relevant or even obsolete (Ren, 2022; Ren & Wong, 2021). Skills that tour guides have traditionally been trained in, such as service provision, first aid, interpretative recitation, and promoting socialist ideology, are proving inadequate for educating tourists about ecotourism and sustainable practices (Kong, 2012; Sun et al., 2022). Therefore, reevaluating the role of tour guides to include perspectives that emphasize critical thinking and sustainability awareness is crucial. Such an approach can significantly impact cultural identity, the image of the destination, and ultimately, the value perceived by tourists, influencing their intention to return (Cheng et al., 2018).

Mindfulness, as a cognitive psychological state with the characteristics of flexibility, engagement, openness, and creativity, has been adopted successfully to enhance an individual’s experiences and awareness (Bercovitz et al., 2017; Langer, 1991). This

psychological concept has been used to examine ways to encourage more effective interpretation for tourists (Dussler & Deringer, 2020; Frauman & Norman, 2004; Tan et al., 2020). Previous research has mostly focussed on the influence of non-personal interpretation such as signs and brochures on tourists, rather than tour guides. Encouraging this state of mindfulness in tour guides may help visitors better understand the nature and culture of destinations, reduce conflicts between tourists and hosts, and encourage more sustainable action. There is value in investigating whether more mindful tour guides could positively affect tourist behaviours, making them care more for natural and cultural heritage and think in a more critical style.

1.3. Situating the researcher

The researcher has worked as a tour guide and lecturer in China for over 15 years. My initial interest in tour guiding was sparked by the prospect of gaining free access to scenic sites nationwide while guiding a group of tourists. Upon becoming a lecturer at a tourism college, I engaged in a broad range of activities related to tour guiding. These include conducting research and teaching in this field, upgrading the level of my tour guide certificate, and founding a local tour guides association. Among the most cherished experiences is leading various tour groups to visit more than 30 countries and many Chinese cities. These journeys had provided me with valuable opportunities to understand this occupation and the subtle relationships of guides with tourists. During the trips, it wasn't just the breathtaking landscapes that left an impression on me, but also the frequent conflicts and misunderstandings that erupted between tourists and residents, such taking photos with foreigners without permission or leaving graffiti on heritage remains. Tour guides sometimes could attempt to bridge these gaps and explain the root causes of culture shock, language barriers or ideological differences. However, many situations often left the guides feeling bewildered about the best action due to a lack of adequate knowledge, specific training, and comprehensive understanding of these complex dynamics (Luo et al., 2021). This gap in managing the inappropriate behaviours of tourists is a significant challenge within the tourism industry, and an area of concern in academic research. My unique position as both a

practitioner and an academic motivated me to explore this issue more deeply from the perspective of Western mindfulness theory and tourism sustainability.

1.4 Aims and Research Questions

This thesis seeks to examine how training for Chinese tour guides could be improved to support them in assisting tourists to develop more sustainable actions. To develop a more specific set of research questions to address this topic area, it is necessary to examine the relevant literature in more detail. The literature review in Chapter Two starts with the broader topic of using interpretation to manage tourist impacts and to contribute to more sustainable tourist behaviour. It then focuses attention on tour guides as a core element of personal interpretation and as key staff in tourist management in general. The Chinese tour guide training system is explored, and a preliminary descriptive framework linking tour guides to tourists' sustainable behaviour is presented. In recent years research in tourism-related contexts has witnessed increased application of the mindfulness concept wherein many researchers have studied the impact of mindfulness on tourism sustainability (Barber & Deale, 2013; Caruana et al., 2014; Goldberg et al., 2022; Stankov et al., 2022; Taylor & Norman, 2018). The review therefore introduces mindfulness theory from psychology, which has been linked to tourism, effective heritage interpretation, and to sustainable action in general. This theory is then used to develop the following more specific research questions for the thesis.

Research questions:

Question 1: To what extent does a tour guide training program implementing mindfulness techniques and sustainability education encourage tour guides to become more mindful and to change their interpretive practices to focus more on sustainability at and beyond the visited place?

Question 2: How do interactions with tourists by tour guides who have had mindfulness-based sustainability training differ in their guiding practice from those who have not been trained?

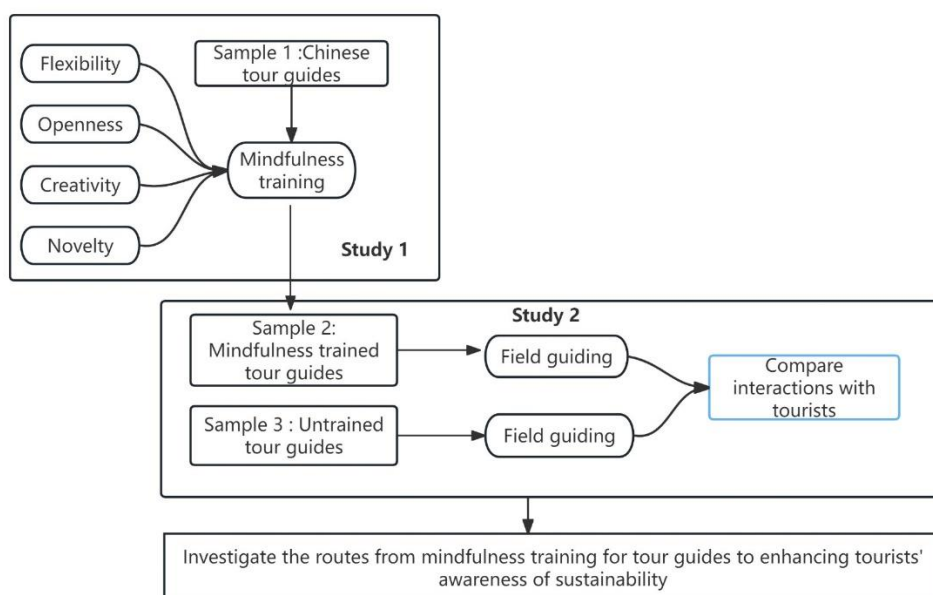
Question 3: If and how do mindfulness-trained tour guides encourage more

sustainable behaviour in tourists?

Based on the literature gaps, research opportunities, and key research questions, the methodological framework for this research is illustrated in Figure 1.1. The first research question is addressed by evaluating the effectiveness of a mindfulness and sustainability training program focussing on flexibility, openness, creativity, and novelty, in encouraging more mindful Chinese tour guides. The second and third research questions are then addressed by comparing a subset of the trained guides from study one to an untrained sample of tour guides in the field, focussing on their guiding behaviours and the reactions of tourists on their tours.

Figure 1.1

Methodological framework



1.5 Methodology

This research methodology was constructed within a pragmatist philosophy. Pragmatism is one of the five major research philosophies which refer to a system of beliefs and assumptions about the development of knowledge, alongside positivism, critical realism, interpretivism, and postmodernism (Saunders et al., 2019). Originating in the late 19th and early 20th centuries, primarily in the United States, pragmatism emphasizes the practical application of ideas, the dynamic relationship between knowledge and action, and the

significance of experience in shaping beliefs. Using pragmatism, researchers can allow for a departure from the objectivist conceptualizations that have traditionally dominated research in various sciences, enabling a nuanced exploration of how knowledge informs action within specific contexts (Kelly & Cordeiro, 2020). Pragmatists recognise the diverse perspectives in interpreting the world and undertaking research, that no single point of view can ever give the entire picture, and that there may be multiple realities in any social situation (Saunders et al., 2019).

This research aims to explore a persistent issue in the sector, the impact of Chinese tour guides on tourist action and thought. This investigation adopts a novel angle, integrating the Western theory of mindfulness and concepts of sustainability into the design of interactive training activities and then evaluating any changes in participants resulting from the training program that might influence tourists during guided tours. Given its focus on practical outcomes and contextual understanding, pragmatism was selected as the most appropriate guiding philosophy for this study. Pragmatism encourages researchers to select relevant methods and methodologies 'in terms of carrying us from the world of practice to the world of theory and vice-versa' (Kelemen & Rumens, 2012). This philosophy supports a mixed method approach, adopting the strength of both qualitative and quantitative analysis, which provides a more complete picture of a research topic. Such an approach can not only address a wider array of research questions but also enriches theory development and practical application (Johnson & Onwuegbuzie, 2004). By utilising a mixed methods approach, researchers can employ quantitative data to confirm and test the results of qualitative data, and qualitative data to confirm and add meaning to quantitative data.

The proposed research combines qualitative and quantitative research techniques within an action research framework to uncover actionable knowledge. Action research, a methodological approach commonly used in social sciences, education, healthcare, and organizational development, involves a cyclic process of planning, acting, observing, and reflecting, with the aim of solving real-world problems and improving practices (Lewin, 1947; Rasyid, 2019; Schmitz & Lekane Tsobgou, 2016). This methodology aims at addressing real-life, context-specific problems through collaboration and emergent solutions. Recognized for its effectiveness in organization development and social sciences, action research prioritizes

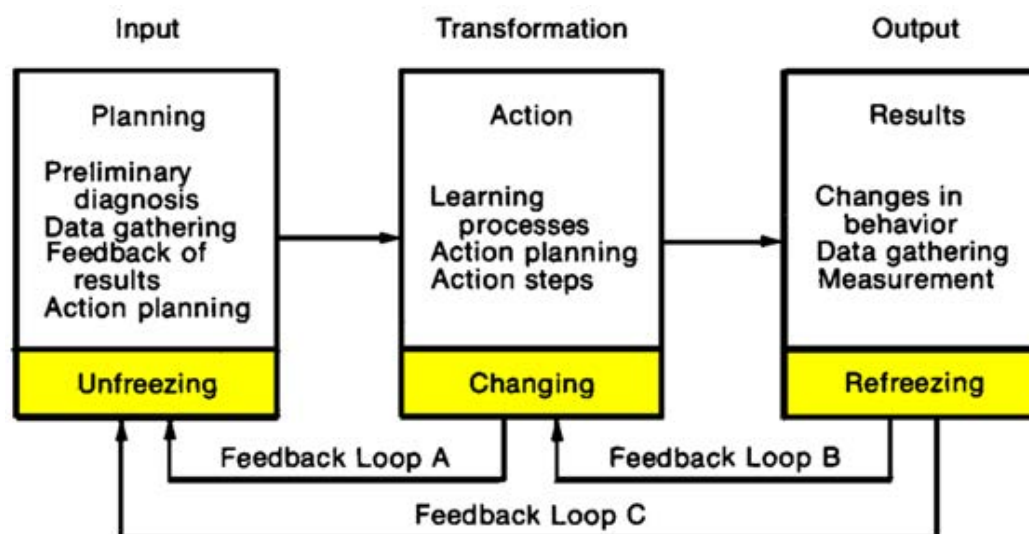
actionable knowledge derived from participants' experiences, ensuring the study's outcomes are practically applicable (Coghlan & Brannick, 2014; Goebel et al., 2020). Lewin (1947) believed that if people are active in decisions affecting them, they are more likely to adopt new ways and make changes.

Figure 1.2 depicts the action research method framework with a cyclical process of transformation. When the individual or group face a dilemma and become aware of a need for change, they are in the first “unfreezing” stage. Preliminary diagnosis, data collection, and feedback of results are conducted together with the participants and external stakeholders. In the second transformation stage, some newly built models of behaviour are explored and tested through learning processes and planning. Then action-planning activities and action steps are carried out jointly by the participants and stakeholders. Finally, feedback from these new actions is transformed to the previous input stage with the effect of altering previous planning.

The third stage of action research is the "Refreezing" phase. Application of new behaviour is evaluated, and if reinforced, adopted. This stage outputs actual changes in behaviour resulting from corrective action steps taken from the second stage. Data or outcomes are again gathered from the system so that progress can be determined and necessary adjustments in learning activities can be made. After re-evaluation, some minor adjustments might be made and transformed to the action stage. If major adjustments are needed, then the process returns to the first stage for basic changes in the planning takes place (Johnson, 1976).

Figure 1.2

System model of action-research process



Note. (adapted from Johnson, 1976)

In tourism, action research has not been used often but has been recognized as having the potential to involve tourism stakeholders and impact their decisions for sustainable changes (Goebel et al., 2020). An example of this can be found in an action research project that facilitated both researchers and stakeholders to study complex government issues in tourism in Cameroon, and this methodology successfully assisted the government in promoting more effective use of tourism in community development (Schmitz & Lekane Tsohgou, 2016).

The proposed research involved cooperation between the researcher and the practitioner tour guides who work in the field and who are engaged in solving real guiding problems and making changes in the future. The research comprised of two main studies. The first study focused on research question one and explored the effectiveness of a mindfulness-based sustainability training program for tour guides in enhancing guide understanding of both mindfulness and sustainability and change their practice intentions. To enhance the efficiency of the training and ensure it addresses a real-world problem beneficial to the tour guides trainees, a small advisory group was formed. This group comprised five experienced and professional tour guides, along with a Chinese professor specializing in tour guide

research. They recommended incorporating additional interpretation cases within the Chinese context, specifically those that reflect mindfulness that the guides may not be aware of in their daily work. Furthermore, another modification was made to the training workshop based on feedback from the advisory group. The free open discussion in the online workshop did not align well with the preferred Chinese communication style. Instead, a more structured format where each guide was invited to share their responses publicly or engage in private conversation with the trainer via WeChat, a popular Chinese social media, was found more effective and welcomed by the participants.

Study two then explored how the mindfulness-based sustainability training might be linked to changes in how the trained guides interact with their tour participants and through that to changes in sustainable awareness and intentions among those tourists by comparing volunteer guides who had completed the mindfulness and sustainability training program in Study 1 to volunteer guides who had not received the training. This second study addresses research questions two and three. During the fieldwork of Study Two, the researcher, who has extensive experience in both guiding practice and guide training, interacted with practitioners to get both feedback on the research approach, consistent with an action research model, and to improve the practical implications of the results.

1.6 Thesis Overview

After this first introductory chapter the thesis has four chapters which can be summarised as follows. Chapter 2 provides a literature review covering the available research evidence on sustainable behaviours of tourists, tourism sustainability in the Chinese context, the use of heritage interpretation to manage tourist impacts, tour guide roles, functions and contributions to sustainability, tour guide training and mindfulness theory and its application to tourism.

Chapter 3 then reports on the first study which administered and evaluated a tour guide mindfulness training program. The researcher designed a mindfulness training program based on knowledge of tour guide training, characteristics of Socio-cognitive or Langerian mindfulness and tourism sustainability. A purposive sampling technique was used to recruit

twenty-seven professional Chinese tour guides who currently conduct tours in China to complete this training program.

Once developed, the researcher conducted an online training program over two months with several sessions in the schedule. These sessions were comprised of introducing the concepts of mindfulness and sustainability through lectures, and the application of mindfulness in tour guiding through online interactive activities and offline regular practice. Before the training, all the participatory tour guides completed an online based survey which included an established the 15-item Mindfulness Attention and Awareness Scale (MAAS) by Brown and Ryan (2003) in the Chinese version. The questionnaire also included questions on awareness of the mindfulness concept, awareness of sustainable actions in which their tour participants could be encouraged to engage, and what kinds of techniques they currently use to get and keep visitor attention. At the end of the training program the guides were interviewed again. Questions included the 21-item mindfulness scale conceptualized by Ellen Langer so that differences in mindfulness could be assessed. Questions focused on any changes that the guides thought they would make in how they lead their tour groups to enhance sustainability, and an overall evaluation of the training program itself. Consistent with action research approaches various points in the training program the researcher checked with the mindfulness training discussion group on how they thought the training program was proceeding to identify any major issues that could be corrected.

Chapter 4 then reports on the second study which explored trained versus untrained tour guides' influence on tourists' experiences and sustainable behaviour awareness. This study addressed the second two research questions:

- Do mindfulness trained tour guides interact differently with tourists than untrained guides? and,

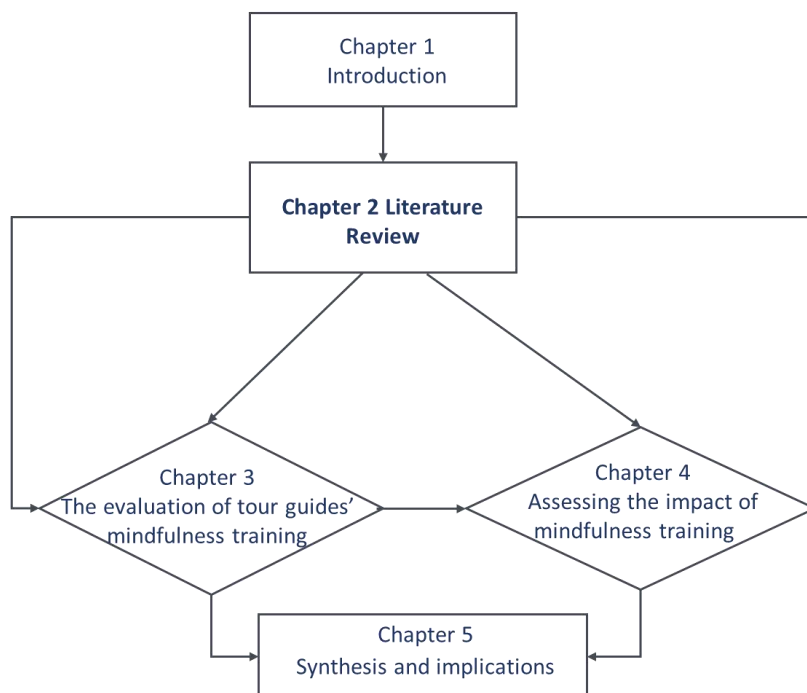
- If and how do mindfulness trained tour guides encourage more sustainable behaviours of tourists?

This study was informed by the outcomes of study 1 and included data collection from,

and observation of, tour guides, and their tour participants. This study was conducted on-site in a World Heritage Site, Huangshan Mountain Region of China in 2023. The researcher invited some of the tour guides who completed the mindfulness training program to participate and then recruited other tour guides who had not done the mindfulness training. These two groups of tour guides were compared in terms of how they interacted with their groups and whether they encouraged more satisfied tourists and more sustainable awareness and intentions. The researcher engaged in participant observation by joining at least one on-site trip led by each guide. During each field trip the researcher observed how the guide interacted with their group, their use of mindfulness and interpretation techniques with their tourists and if they included sustainability in their interpretation or practice. This was supplemented by an interview with the guides and a survey of tourists.

The final chapter provides a summary of the research and its key results and offers conclusions for the practice of tour guiding and tour guide training as well as for the use of mindfulness theory and conveying tourism sustainability in tour guide's research. It also offers future directions for research in this area.

Chapter 2. Literature Review



2.1 Tourism sustainability and sustainable behaviour

A great number of research studies, various media organizations, and professional bodies have documented the rise of sustainability as a topic of interest worldwide. UNESCO (2015) defined sustainability as both a paradigm and a long-term goal for the future, in which environmental, societal, and economic considerations are balanced in the pursuit of an improved quality of life. To achieve this aim, people will need to adopt many sustainable pathways and processes in agriculture, education, business, government, and each aspect of life. All these sustainable actions combine into a whole map of sustainable development. The standard description of sustainable development requires people to meet their present needs without compromising the ability of future generations to meet theirs (Brundtland, 1987).

Since World War II, tourism has become one of the most prevalent human activities, contributing to both local and global changes. The World Travel and Tourism Council predicts that international arrivals will reach 1.8 billion by 2025 (World Travel and Tourism Council, 2021). These large-scale tourism activities generate both positive and negative impacts on the

economy, environment, and society in the destinations. Positive impacts include job creation, cultural heritage preservation and interpretation, wildlife preservation, landscape restoration, and more (Global Sustainable Tourism Council 2020). The potential negative impacts are economic leakage, damage to the environment, eroding traditional local culture, and worsening of the quality of life of destination residents. To minimise the negative impacts of such increased tourism, the application of sustainable tourism could contribute positively to communities, natural ecosystems, and cultural heritage of destinations. Sustainable tourism is defined as forms of tourism that consider a full account of its current and future economic, social, and environmental impacts, addressing the needs of visitors, the industry, the environment, and host communities (UNWTO, 2005).

However, achieving sustainable tourism remains a considerable practical challenge to governments, businesses, and other destination organisations in most parts of the world. Some of the sector wide challenges include the lack of unified tourism institutions to manage cross-regional tourism activities, competition between tourism destinations, and the separation of tourism practice and academic research (Boluk et al., 2019; Costanza, 2009). Another major challenge is that tourism, as a vehicle for sustainable development, has gradually become divorced from the broader aspects of development objectives, emphasising economic growth while ignoring social and environmental impacts (Sharpley, 2020). Finally, different tourism stakeholders have different perspectives on sustainability, and this prevents coherent approaches (Boom et al., 2021; Ruhanen et al., 2019; Sharpley, 2020). Reviews of sustainable tourism research indicate that while much of the focus has been on specific forms of tourism, such as indigenous tourism, eco-tourism, and volunteer tourism, specific destinations like protected areas, or particular issues like climate change and poverty reduction, there has also been a notable increase in more general research into sustainable tourist behaviour (Chan et al., 2015; Dolnicar et al., 2016; Esfandiar et al., 2019; Gössling et al., 2012; MacInnes et al., 2022; Miller et al., 2014).

The discussion of sustainable tourism has also shifted from a focus on tourism providers on the destination supply side, to the destination demand side with a focus on tourists. This

thesis falls within this latter category and focuses on moving towards sustainable tourism through a better understanding of tourists' attitudes and behaviours. Many authors (Cajiao et al., 2022; Chang et al., 2020; Landon et al., 2018; Passafaro, 2019; Paul & Roy, 2023; Sharmin et al., 2020) have proposed that a practical strategy to enhance the sustainability of destinations is through supporting tourists to be more open to sustainable behaviour, attitudes, and values. Sustainable tourist behaviour is also sometimes referred to as pro-sustainable behaviour, pro-environmental behaviour (PEB), ecotourism behaviour, or pro-ecological behaviour. All these concepts refer to lessening the negative impact of human activities and enhancing the quality of the environment (León & Araña, 2020). The general tourist's pro-sustainable behaviour includes the reduction of environmental impact, the consumption of local goods and services, and a willingness to sacrifice time and money to choose sustainable options. While there have been studies that have examined the sustainable behaviour of visitors from the perspective of place attachment, environmental attitudes, environmental education, recreation experience, and environmental values (Cheng & Wu, 2014; Lee & Jan, 2023; Lee et al., 2015), managing tourists to behave sustainably continues to be a challenge for tourism practice.

Research indicates that some tourists, who are environmentally and socially responsible in their everyday lives, may abandon those behaviours and values when travelling (Miao & Wei, 2013). Other tourists are sometimes reluctant to support restrictions that may be necessary for sustainable accommodation (Gössling et al., 2019). Researchers have used various psychological theories, such as norm-activation theory (Schwartz et al., 2012), the theory of planned behaviour (Ajzen, 1991), or value-belief-norm theory (Landon et al., 2018; Stern, 2000) when examining tourists' behavioural changes. In addition, it has been found that tourist sustainable behaviours can be influenced by their socioeconomic profiles (Dolnicar et al., 2016; Holmes et al., 2019; Ramkissoon et al., 2013) and personal factors such as age, regional identity, environmental values, perceptions, moral motivations, personal norms, and habits (Cajiao et al., 2022; Gössling et al., 2019; Paul & Roy, 2023).

In addition to these studies that focus on individual tourist variables there has been some research into the techniques for managing tourists on site. The most common management tool that has been studied is interpretation or educational communication with visitors, especially in protected heritage areas (Jiang et al., 2019; Powell & Ham, 2008; Silberman, 2012). Within this area it is argued that personal interpretation staff, like tour guides, play an important role in impacting tourists' sustainable behaviours via their interpretation techniques (Lee et al., 2021; Packer et al., 2022; Poudel & Nyaupane, 2013). Research into the role of interpretation in general, and tour guides in particular, in encouraging more sustainable attitudes and behaviours amongst tourists is, however, still limited (Francis et al., 2019; Jamaliah et al., 2021). The present thesis seeks to explore this aspect of sustainable tourism in more depth. It will examine whether the tour guides who have been trained with sustainability awareness and knowledge have a greater influence on tourist attitudes, values, and actions relevant to sustainable tourism. More specifically, it seeks to conduct this examination in the context of Chinese tour guides.

2.2 The Chinese tourism sustainability context

2.2.1 Chinese tourism sustainability background

While Western nations have long recognized and adopted sustainability as a foundational principle of development, it hasn't gained the same traction in China. In its commitment to the 2030 Agenda for Sustainable Development, China vowed to earnestly fulfill the tasks in the National Plan under the guidance of the people-centred development concept featuring innovative, coordinated, green, open, and shared development (Ministry of Foreign Affairs of the People's Republic of China, 2016). Subsequently efforts have been made to align and integrate sustainability with China's deep-rooted and evolving political philosophies like "scientific development," "harmonious society," "ecological civilization," and "high-quality development" (Wang & Zhang, 2020; Xu et al., 2014; Xu & Sofield, 2013). This process of adaptation and alignment is known as 'Sinicization', a process of trying to ensure that Western concepts of sustainability align with the unique tenets of socialism in the Chinese context. Over the last three decades, China's economy has grown rapidly following its own development model "develop first, protect later" (Liu & Diamond, 2008). This model

prioritized the immediate establishment of large-scale constructions and facilities at the expense of preserving the natural environment and safeguarding the well-being of local communities and destinations. While this aggressive development strategy has yielded economic benefits for the Chinese population, it means that the sustainability principles China promotes are not fully adhered to by all stakeholders.

Within the realm of tourism, the discourse on sustainability in China remains distinct from actual industry practices and government policies. The Chinese tourism market has grown rapidly both internationally and domestically over the past years following its unique development model. Prior to the COVID-19 pandemic, 6 billion domestic and 155 million outbound trips from mainland China generated around \$1 trillion in travel spend (www.mct.gov.cn). This propelled China to the top of global rankings for domestic tourism spend and outbound traveller numbers. In the recent 2024 Chinese New Year holidays, the country recorded 308 million domestic trips, generating almost RMB 376 billion in tourism revenue (Blazyte, 2024). This indicates that domestic travel volume has recovered to 90 percent of 2019 figures, and spending has recovered to around 70 percent of pre-pandemic levels. With its huge traveller numbers and market size, Chinese tourism could be instrumental in advancing the sustainability agenda. However, many proposals pertaining to sustainable tourism development have often remained in official documents but without real actions in practice.

From an academic standpoint, several features of tourism sustainability research of China can be described. Firstly, various related terms have been applied in the discussion including some Chinese specific ones, often without clear distinctions. Since the 1990s, scholars like Yanjun Xie have heralded sustainable tourism in China as a "novel concept, emerging topic, and evolving challenge" (Zhou & Zhang, 2023, p. 48) for the nation's tourism trajectory. Diverse interpretations have resulted in the adoption of several distinct Chinese terms in research, encompassing phrases like "sustainable tourism", "sustainable tourism development", and "sustainable tourism destination" without much further clarification. "Low-carbon tourism", "good tourism" and "benevolent tourism" are other terms recently coined by the Chinese Academy and remain predominantly within the Chinese linguistic context (Zhou & Zhang, 2023). Nonetheless, these terminologies largely reflect the

foundational principles of sustainability theory, indicating a commitment to lasting tourism that harmoniously integrates the natural, social, and cultural elements.

The second feature is that a significant proportion of research articles argue that Chinese tourism sustainability is addressed by predominantly reviewing its positive contributions. These articles praise the high-level Chinese policies, regime, and strategies to move towards SDGs and ensure the continuity of environmental sustainability laws and regulations. They detail the practical application of these policies but avoid discussions of the drawbacks (Chen et al., 2020; Giorgi et al., 2020; Liu et al., 2018). A unique perspective was provided in a review of articles investigating China's environmental, socio-cultural, and economic topics from American National Geographic magazine published from 2003 to 2012 (Chen et al., 2014). It indicated some travel writers observed both negative and positive issues in environment protection by Chinese government, difficulties in putting laws into practice as well as tensions between China's heritage, history, and tourism development (Chen et al., 2014).

The third feature is that an increasing number of articles delving into the universally recognized sustainability theories are interpreted with some unique Chinese discourse and characteristics. For example, "ecotourism" is mostly acknowledged with an emphasis on the natural aspect of environmental protection and biodiversity conservation as the core objectives of sustainable tourism (Liu et al., 2013; Liu et al., 2018). However, a review of major international four top tourism journals, between 1979 to 2015, revealed that among 257 research articles on China tourism, a mere eight articles touched on the theme "ecotourism and sustainable tourism development", constituting only 3.1% of the whole (Bao et al., 2018; Liu et al., 2018). Over time, scholars have recognized that Chinese ecotourism seeks to allow visitors to experience and understand nature, get environmental education, and gain happiness. It does not insist on adherence to Western sustainable development and integrates traditional Chinese characteristics of harmonious coexistence between human beings and nature, and the premise of environment protection (Hu et al., 2019). Xu et al. (2014) argued that ecotourism should reflect scientific and empirical evidence, and further integrate traditional Chinese cultural beliefs, and political and social factors, to achieve sustainability. For example, one element of traditional Chinese intangible culture, the annual seasonal changes, "Jie qi", has been connected to climate tourism (Yang, 2018). It suggests

that climate tourism products, which enhance awareness of human impact on the environment, can be innovatively developed using typical Chinese heritage and practices. The foundation of climate tourism knowledge is built upon natural and social sciences, essential for understanding and utilizing the 24 “Jie qi” in climate tourism. Meanwhile, in social sciences, research has begun to incorporate culture, sociology, economics, and management science into this concept of climate tourism. These interdisciplinary approaches have enriched the field, highlighting the potential of integrating traditional cultural elements with environmental consciousness in tourism.

A study by (T. Wang et al., 2023) examined how “face consciousness”, rooted in Chinese Confucian culture, influences tourists' sustainable behaviours. Face, a complex concept within Chinese society, is critical in social interactions and comprises two aspects: “lian” and “mianzi”. Lian refers to the social respect one earns through moral integrity, whereas mianzi pertains to the prestige or reputation gained from social success (Ho, 1976; Hu, 1944). Losing lian affects one's dignity and self-respect, leading to shame, while losing mianzi impacts social image, causing embarrassment (Zhou & Zhang, 2017). The research highlights that Chinese outbound tourists with a broader identity awareness show higher face consciousness and are less likely to engage in deviant behaviours. This suggests that promoting identity-related cues could effectively discourage such behaviours, emphasizing the importance of understanding cultural dimensions in fostering sustainable tourist practices .

The fourth feature is that the concept of “responsible tourism” is often examined by focussing on tourist behaviour (Mondal & Samaddar, 2021). Such articles discuss Chinese tourists and their sustainable behaviour or ecotourists' behaviour in China. For example in Shi et al.'s (2019) study, tourists were categorized into four types based on their degree of ecotourism orientation, from highest to lowest: "Enthusied Ecotourists", "Ecotourists", "Hands-on Greens" and "Ambivalent," during their visit to a protected beach in China. This research offered guidelines for ecotourism development, fostering a harmonious relationship between protected areas and visitors, and making a significant contribution to the advancement of ecological civilization (Shi et al., 2019). Other discussions on responsible tourism also explore ways to manage tourist behaviour and tourism destinations through smart technology, aiming to achieve some overarching sustainability objectives (Lee & Jan,

2023; Lin et al., 2022).

2.2.2 Chinese tourists' unsustainable behaviour

Chinese tourists have at times been portrayed negatively in media, often labelled as displaying “uncivilized behaviour” or “deviant tourist behaviour” (Liu et al., 2020; Tolkach et al., 2017; Z. Wang et al., 2023). There have also been numerous reports, both internationally and domestically, criticizing some Chinese tourists for unsustainable or uncivilized behaviours. Such behaviours include wasting food at restaurant buffets, excessive shopping for luxury items, misusing water and electricity, cutting in line for public transportation, and littering (Jin, 2019; Pearce, 2019). In response, the Chinese government advocates better behaviour while travelling through the regulation via “Tourism Etiquette Rules for Chinese Citizens Travelling at Home”, which aligns with the idea of “civilized traveling”. This obligation requires tourists to conduct appropriate and courteous behaviour at tourist destinations, by keeping the environment clean and tidy, abiding by public order, preserving the ecological environment and, safeguarding historical sites and cultural relics (Liu et al., 2020). Notably, Chinese governments have annually displayed some uncivilized tourists on a “blacklist” who have violated these principles, imposing restrictions like curtailed public transportation access and not being provided with travel agency services (Y. Liu et al., 2021). McKinsey’s 2023 survey highlighted that Chinese travellers are increasingly conscious of sustainability but are not yet willing to spend more on sustainable products or services. Consequently, external interventions may be essential to shift this perspective.

The Chinese government recognizes the importance of tour guides in managing tourists. With respect to most of Chinese package tour groups, they are permitted to go abroad only when accompanied by registered tour guides, who are responsible for managing their appropriate behaviours in outbound travel settings (Huang 2010). However, ensuring tourists behave politely in a sustainable manner, reducing conflicts with locals, and projecting a positive image is a daunting task for tour guides. Although China has implemented extensive training programs to enhance guiding skills, the emphasis is largely on tour guides’ instrumental abilities such as equipment operation, first aid, and outdoor recreation competencies, as well as indoctrinating socialism ideology (Hu & Wall, 2013; Luo et al., 2021).

Training to support guides in encouraging more sustainable awareness for tourists has still not been widely considered by the administration.

From an academic standpoint, understanding Chinese tourists' sustainable behaviour, remains an underexplored area. A few studies, like Cottrell et al. (2007), Shen et al. (2016) and Lai et al. (2018) explored the behaviour of tourists from the perspective of local residents in regions like Hong Kong and Macau. They noted the shift of tourists from "ambivalent" supporters to "ardent supporters" of the host community seeking to ensure the healthy development of inbound tourism. Hu et al. (2021) also noted residents' environmentally responsible behaviour has a positive relationship with tourists' green consumption and environmental concern, while the destination identification mediated this relationship. Only a handful of papers have touched upon the awareness of tour guides in environmental protection and the changes of their roles from "agent to service" to "green lifestyle advocate" in promoting sustainable behaviour of tourists, but not from any field work study (Kong, 2012; Ren, 2022; Ren et al., 2023). Pu et al. (2022) concluded local Tibetan tour guides utilise their local religious wisdom and experiences to engage Western tourists, aligning their values on sustainability. This is however a rare study in this area and more research is needed to explore this topic.

2.3 Heritage interpretation to manage tourism impacts

Managing the behaviour of tourists is a challenging issue in the tourism industry. As most of the laws and regulations in the tourism industry have been designed and implemented to promote macro development of the industry, only a few regulations pertain directly to the onsite management of tourists (Mason, 2005). Mason and other authors argued that the three main approaches to visitor management are controlling the number of tourists and regulating tourist behaviour, adapting the physical environment to cope with the volume of tourists, and using education and scheduling to modify tourist behaviour. The former two approaches are considered as 'hard approaches', and the latter is treated as a 'soft approach'. Hard approaches require greater investment in infrastructure and long-term design processes. While some of these interventions have been somewhat successful, they do have limitations. For example, with regulation, providing information about and enforcing rules and laws can

be difficult in many of the places where tourists prefer to visit (Mason, 2005). The soft approach of modifying tourists' behaviour has been shown to be more cost-effective and convenient to implement (Mason, 2021). Among the soft approach strategies, the use of interpretation relating to educational processes is often recognized as the most compelling approach to manage tourists.

2.3.1 Interpretation Definition

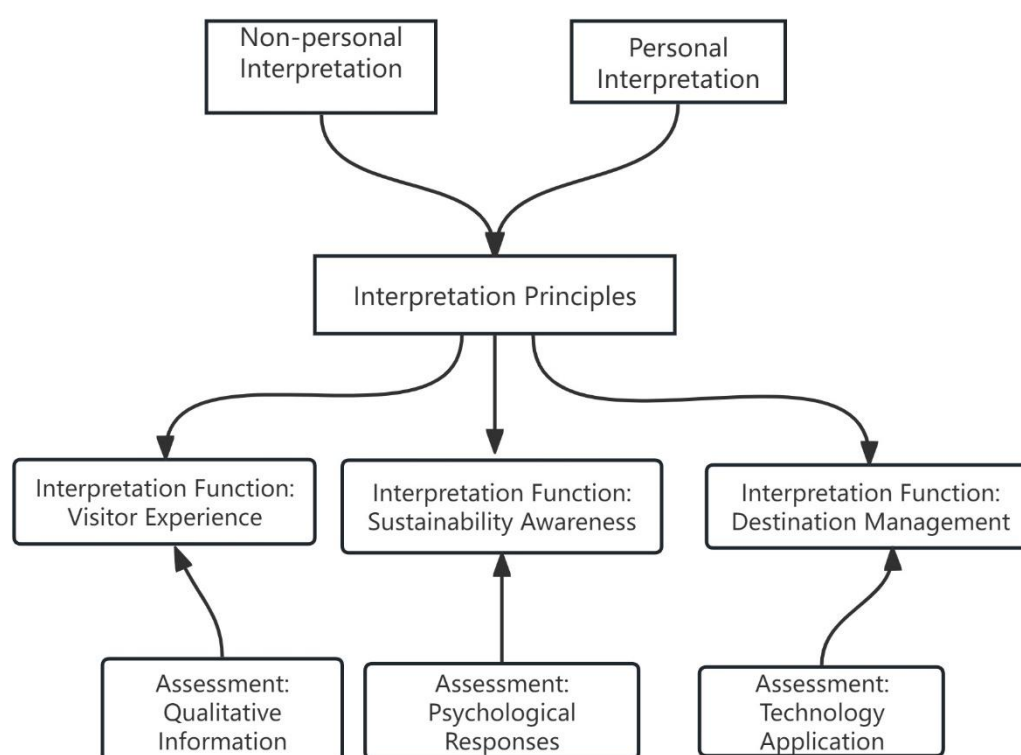
Many professional environmental and free-choice education organizations have shared their understandings of interpretation. For example, Interpretation Australia announces that interpretation is sharing information and knowledge about locations, the natural world, or historic places in a way that helps visitors make sense of their environment (Interpretation Australia, n.d.). The European Association, Interpret Europe (n.d.) defines heritage interpretation as "a purposeful approach to communication that facilitates meaningful, relevant, and inclusive experiences that deepen understanding, broaden perspectives, and inspire engagement with the world around us". The International Council on Monuments and Sites, defines heritage interpretation as "the full range of potential activities intended to heighten public awareness and enhance understanding of cultural heritage sites." (ICOMOS, 2008). All in all, there is agreement that the aim of interpretation is to assist tourists to understand and appreciate heritage through a rewarding and memorable experience.

Contemporary understandings of interpretation in academy share many essential aspects in common. One is the interpretation function, expressed variously as communicating information, delivering knowledge, revealing meaning, and sharing stories (Beck, 2015; Moscardo, 2014; Silberman, 2012). Interpretation objects are cultural and natural resources, often in their physical settings. The tools of interpretation vary from static media such as exhibitions and brochures to dynamic techniques including video, and audio material to enhance the interaction with tourists (Rahaman & Kiang, 2017; Weiler & Ham, 2002). In all, interpretation is a practical educational activity, culturally situated and critically reflexive, that provides information to tourists, aiming to help them understand the origin of heritage and

raise protection awareness. Furthermore, effective interpretation can resonate with tourists and raise their awareness of, and support for, protection of the visited places (Ballantyne & Packer, 2011; Packer et al., 2019). Figure 2.1 provides an overview of the main elements of interpretation that need to be considered.

Figure 2.1

An Overview of the Main Elements of Interpretation



This figure provides an overview of the main elements of interpretation within a touristic setting, delineating the framework into two principal categories: Non-personal Interpretation and Personal Interpretation. These categories stem from the interpretation principles that guide the communicative strategies employed by tour guides provided at a destination. Underneath these categories, the figure branches out into three specific functions of interpretation—visitor experience, sustainability awareness, and destination management. Each function has a tailored assessment method to evaluate its efficacy. For visitor experience, the assessment mainly focuses on gathering qualitative information to understand the impact

of interpretation on tourists (Arana & Leon, 2016; Cozzio et al., 2022; Esfandiar et al., 2019; Miller et al., 2014). The function of sustainability is evaluated through psychological responses, gauging the interpretive strategies' effectiveness in influencing sustainable awareness, attitudes and behavioural intentions (Georgescu & Herman, 2020; Paul & Roy, 2023; Sharmin et al., 2020). Lastly, for the destination management function, technology application is assessed to determine how well interpretive tools and digital platforms are integrated into managing the tourist experience at the destination (Pérez Guilarte & Barreiro Quintáns, 2019; Ratten et al., 2019; Sharpley, 2020). This model showcases the interconnectivity between interpretation methods and their intended outcomes in the context of tourism.

2.3.2 Interpretation tools and techniques

Table 2.1 provides an overview and description of the main features of interpretation tools or techniques. The first major feature is that interpretation could be classified as personal or non-personal according to the subject of implementation (Munro et al., 2008). Non-personal techniques include signs, brochures, and static displays that visitors can use without the need for staff assistance. Personal techniques require the presence of interpretive staff or guides (Weng et al., 2020).

Non-personal interpretation can be further divided into traditional and emerging techniques. Traditional interpretation tools and techniques, such as signs and guidebooks, have been utilized for a long time in tourism and are widely accepted by tourists (Huang, 2010; Kuo, 2002; Silberman, 2012). Emerging or new techniques are based on technology, such as the use of virtual tour guides, and these newer interpretation tools and techniques can attract tourists due to their advantages in engagement, adaptability, and trustworthiness to guests (Rahaman & Kiang, 2017). Newer interpretation techniques such as smartphone applications may offer tourists the ability to have greater control over their experiences, to customize or personalize their experience, and to appreciate different perspectives or stories about the places they visit (Gatelier et al., 2022; Hughes & Moscardo, 2017; Kang & Gretzel, 2012; Moscardo, 2015).

Table 2.1:*Overview of Interpretation Techniques*

Interpretation Variables	Non-personal interpretation		Personal interpretation
Technique Type	Traditional Technique	Emerging/New Technique	Face to face and personalized
Tools	print, signs, post, brochures	high-tech VR, AR, new mobile applications, social media, digital guides	Tour guide, interpreter, rangers, curators, interpretive staff
Description	Educational programs, community activities, public lecture, research training	Game engines, multi-player virtual environments, haptic devices, augmented visualizations, immersive display	Participation in the activities and personal interaction
Interaction opportunities for visitors	Static/one-way	Dynamic/two-way/Multi senses	Two ways
Mobility	Low	Depends on specific option	High
Engagement opportunities	Low	High	High

Note. Adopted from ICOMOS, 2008; Munro et al., 2008; Rahaman & Kiang, 2017; Wang et al., 2021; Watterson, 2014.

Several studies comparing non-personal and personal interpretation have found that personal interpretation is more effective at communicating with tourists and helping them to understand the heritage value of the places they are visiting (Ablett & Dyer, 2009; Güzel et al., 2020; León & Araña, 2020). Personal interpretation can assist tourists to obtain the authentic values of heritage destinations so that the effectiveness of personal interpretation from guides in delivering natural and cultural values becomes more significant (Levine, 2020; Weng et al., 2020). Tour guides can play some significant roles in sustainable tourism development as promoters of economic prosperity, cultural mediators in host-guest interactions, while some tourists may also influence tour guides in encouraging them to adopt more pro-environmental behaviours (Black et al., 2018; Chen et al., 2018; Pu et al., 2022). It can also be argued that personal interpretation can flexibly mix traditional interpretation techniques with newer high-tech tools to communicate with visitors, which can better support rewarding

experiences for tourists (Viñals et al., 2021).

2.3.3 Interpretation principles and main functions

Tilden (1977) was the first to suggest a set of six heritage interpretation principles, arguing that interpretation should; be connected to the experience of the visitor, be about revelation rather than information, be a teachable art, provoke rather than instruct, relate parts to an underlying whole, and that children will need a qualitatively different interpretive approach from adults. Other heritage interpretation scholars then proposed their own sets of principles. Beck and Cable (1998), for example, expanded Tilden's six to 15 guiding principles of interpretation. These include the need to spark visitor interest, offer revelation and provocation, use stories, focus on wholeness, offer targeted programs, personalize content, offer illumination through technology, ensure precision and professionalism, focus on effective interpretive writing that includes discussion of relationships, beauty, joy, passion, and a clear conclusion, and highlighting that interpretation is the gift of hope.

Uzzell also encouraged visitor participation, highlighted the importance of interpretation to serve the needs of visitors, and asked them to be sympathetic to locals (Packer et al., 2019). Many of these ideas overlap with the core principles suggested by the two main authors in this area – Ham (2016) and Moscardo (1999). Ham's (2016) EROT model of interpretation argues that effective interpretation should be enjoyable (E), relevant to the personal interests and experiences of visitors (R), well-structured and organized so that it is easy to follow (O) and based on themes (T). Moscardo (1999) using Langer's mindfulness theory from cognitive psychology, proposed that interpretative factors, such as the use of variety and change, multi-sensory media, novelty, and use of questions, may lead visitors to pay more attention to the environment and react more actively to the new information - that is the state of mindfulness.

Effective interpretation has been shown to enhance visitors' enjoyment (Powell & Ham, 2008), awareness, and knowledge (Powell et al., 2018). It has also been shown to influence visitor behaviour, with positive outcomes such as decreasing vandalism (Mobley et al., 2009), minimizing resource impact (Munro et al., 2008) and fostering adoption of long-term pro-

environmental behaviours (Ballantyne et al., 2018). Three primary functions of interpretation can be identified, providing an optimal visitor experience, destination management, and shaping attitudes towards more sustainable lifestyles for tourists (Benton, 2011; Frías-Jamilena et al., 2022; Lee et al., 2021; Moscardo, 2015).

Enhancing the visitor experience

In many situations the interpretation provided is the core of the experience that visitors can access. Without information and guidance visitors are unlikely to be able to make sense of complex and unfamiliar environments or appreciate the rich knowledge, scientific value and importance of cultural and natural heritage sites. Interpretation can provide access to these sites, assist tourists to quickly build an understanding of these places, and build personal connections to what they are observing or experiencing at the site (Ham, 2006). Positive or rewarding visitor experiences can enhance public support for conserving heritage sites (Carneiro, 2017; Hu & Wall, 2012; Moscardo, 1996), which in turn supports the third function of enhancing sustainability at the destination.

Enhancing sustainable behaviour

Two basic interpretative strategies are used to protect the environment, one is informing visitors of the heritage value of the places visited, and the other is encouraging behaviour change in visitors to minimize their negative impact on these places (Nowacki, 2021). This is a core component of improving tourism sustainability at the destination. Interpretation can contribute to the broader goals of sustainable tourism development by achieving knowledge restructuring and resulting changes in the behavioural intentions of visitors. Interpretation can play a vital social marketing approach to encouraging tourists to change their unsustainable behaviours towards socially beneficial values, knowledge, and attitudes, supporting more sustainable lifestyles beyond the destination (Moscardo, 2015). While tourists' sustainable behaviour can be enhanced by both personal and non-personal communicative approaches, there is evidence that personal interpretation might be better placed to engage tourists in sustainability appreciation and understanding. For example, in a

case study of water consumption in accommodation, researchers found that personal reinforcement was more effective than non-personal communication in raising awareness about sustainable behavioural changes (León & Araña, 2020).

Enhancing destination management

Environmental interpretation is also a strategy for managing visitor impact in destinations sensitive to resource use, effectively guiding tourists towards behaviours that support sustainable tourism development (Kuo, 2002). This approach has been shown to not only enhance the overall experience and perceptions of tourists but also to foster an appreciation for nature, encouraging actions that are in harmony with the environment (Ballantyne & Packer, 2011; Ballantyne et al., 2011; Hwang & Lee, 2019; Prentice, 2004; Van Dijk & Weiler, 2009). By managing where and what tourists do, interpretation can mitigate issues of overcrowding and distribute visitor flow more evenly across a site, thereby preserving its integrity (Moscardo, 2015). Moreover, through providing enriching and engaging experiences, interpretation plays a vital role in destination development. It not only draws more visitors but also encourages them to engage with local products and experiences, enhancing the economic sustainability of the destination (Moscardo, 2015). This underscores the importance of implementing well-crafted interpretive strategies that authentically convey the values and significance of the destination.

In essence, effective interpretation is not just about reducing the negative impacts of tourism but about transforming the relationship between visitors and destinations. It leads to a more sustainable tourism model where the visitors are educated, engaged, and motivated to act in ways that ensure the long-term preservation and appreciation of natural and cultural resources. Adopting such interpretive practices is essential for the sustainable development of tourism destinations, ensuring they can be enjoyed by majorities while maintaining their ecological and cultural integrity.

2.3.4 Assessing Interpretation Effectiveness

There have been three main areas or themes in research evaluating the effectiveness of

interpretation – qualitative research focused on understanding the meanings of interpretative content (Ababneh, 2017), assessments of psychological outcomes for visitors and, most recently, examinations of the effectiveness of new and emerging technologies (Kang & Gretzel, 2012; Rahaman & Kiang, 2017). It is the research assessing the psychological outcomes of interpretation that is of most interest to the present discussion. Typically, interpretation effectiveness studies have focused on visitors' knowledge gains, attitude changes, and behaviour modification onsite (Ballantyne et al., 2018; Baral et al., 2017; Finegan, 2019; Lennon & Tiberghien, 2019; Miura, 2018). Very few of these articles, however, have discussed the role of psychological changes in tourists linked to their interpretation experiences and how this might support more sustainable behaviours both at the site and beyond.

One exception has been the work of Ballantyne, Packer, Hughes and their associates. This group argues that sustainable tourist behaviours depend on interpretation that encourages what they call reflective engagement (Ballantyne et al., 2016; Ballantyne et al., 2018; Lee et al., 2021). They have further argued that the effective interpretation methods need to be tailored to the different personal values based on Schwartz's personal value theory of (Schwartz, 1992) visitors so that they can better build and connect their motivation to long-term pro-environmental behaviours (Ballantyne et al., 2018, 2021; Packer et al., 2022).

This concept of reflective engagement is essentially the same as the concept of mindfulness from cognitive psychology which was introduced by Moscardo to explain interpretative effectiveness (Ablett & Dyer, 2009; Moscardo, 2015). Several studies have emerged assessing the effectiveness of interpretation in terms of encouraging mindful processing by visitors, arguing that this is critical for supporting change in behaviours linked to sustainability (Kang & Gretzel, 2012; Md Noor et al., 2015; Ying et al., 2020).

2.4 Tour guides and visitor management

In the tourism sector, tour guides, also called tourist guides or tour leaders, are employed and work in multiple settings, including cities, natural areas, museums, zoos, historic sites, and other attractions. The European Federation of Tourist Guide Associations provides a definition

of a tour guide as a person who guides groups or individual visitors from abroad or from the guide's own country around the buildings, sites and landscapes of a city or a region and interprets the cultural and natural heritage in the language of the visitor's choice. Weiler and colleagues argued that these tour guides are responsible for catering to the needs of tourists and interpreting the natural and cultural heritage of the places being visited in an inspiring and entertaining manner (Chen et al., 2018; Huang et al., 2014; Weiler & Black, 2015; Weiler & Ham, 2002; Weiler & Kim, 2011). As can be seen from these definitions tour guides operate as personal interpreters within heritage settings, where they may be referred to as docents, interpreters or even rangers, but sometimes can also work to manage tourists beyond those settings. In China, these tour guides are categorized as “local guide”, “national guide” and “outbound tour leader” (Bao & Huang, 2022). Sometimes tour guides can be divided into generalist guides and specialist guides depending on whether they use specialist knowledge and skills. The academic and research literature on tour guides can be organized into the categories of discussions of tour guide roles and responsibilities, tour guide responsibilities for managing visitors to enhance sustainable tourism, and tour guide training.

2.4.1 Tour Guide Roles and Responsibilities

In general, tour guides are important stakeholders in tourism, and they can utilize many techniques to contribute to tourist education, experiences and understanding of the interconnectivity of the local and the global. They are also often accountable for the tour's environmentally and culturally responsible operations. According to Weiler (2016), much academic discussion of tour guides has focused on their roles and responsibilities. Many authors have worked on the formation of various tour guide roles based on quality assurance framework models and tour guide certification models (Cohen, 1985; Hidalgo, 2019; Weiler & Black, 2015). Table 2.2 describes the main roles that have been consistently identified in this literature. The table matches these roles to the responsibilities, skill and attitudes that are seen as necessary for tour guides to be professional in managing and influencing tourist behaviour, enhancing the tourist experience, and increasing customer satisfaction.

Table 2.2*Tour guides' roles, responsibilities, abilities, and characteristics*

Main roles	Subdivided roles	Responsibilities and duties	Abilities, knowledge, and skills	Attitudes and characteristics
Instrumental role, social role	Path finder, Drive guide, group manager, organizer mentor, gatekeeper, public relations practitioner	Navigating groups, enhancing tourists' experience, managing the group, itinerary briefing, arranging tourist services	knowledge of destination, utilization of facilities, regulation, language proficiency, photographer, solving problems, time management, presentation skills	Politeness, punctuality, friendless, strictness, sense of humour, neat and tidy, sense of humour
Mediator role, interpretative role	Cultural middleman, heritage protector, choreographer, sustainability promoter, company representative interpreter, commentator promoter, educator, destination representative, religious inspirer, political propaganda	Green life advocate, Physical access, conveying place, bridging language gaps, culture explanation, reflection, safeguarding, environmental protection, cognitive and affective connections, facilitate emotion	Integrating into settings, information skill, multi-lingual skill, simple explanation, mediate experiences, interpretation, story telling sense of belonging, protect tourists, Facilitate emotional experience	Co-creator, fairness, honesty, trustworthy engagement

Note. Adapted from sources (Chu et al., 2012; Davidson & Black, 2007; Grančay, 2020; Látková et al., 2017; Mackenzie & Raymond, 2020; Nazli, 2021; Poudel & Nyaupane, 2013; Ren et al., 2023; Shi et al., 2023)

2.4.2 The Contribution of Tour Guides to Sustainability

The various multi-functional roles of tour guides enable them to contribute to tourism sustainability in several ways. In the context of managing guided tours, whether in a natural or cultural area, or on a multi-day tour, it is tour guides more than anyone else who have the most opportunities for face-to-face contact with the visitor, and thus to deliver sustainability

messages and directly monitor visitor behaviours. Kohl (2007) pointed out that an eco-tour guide can “channel visitors’” actions to meet the objectives of ecotourism, such as returns to conservation, local empowerment, fairer distribution of wealth, and turning a profit. Hu and Wall (2012) argue that tour guides can request their group members to follow the regulations and rules, and respect the customs of local destinations. Researchers consistently conclude that tour guides can utilize their mediating roles to convey the identities of places and to encourage visitors’ appreciation of sites in a range of different destinations (de la Barre, 2013; Güzel et al., 2020; Leshem, 2018; Yavuz Çetinkaya & Öter, 2015). As potential promoters of a local economy, they have some responsibility for increasing the economic prosperity of local businesses and communities by introducing the unique values of local products and then encouraging visitors to purchase locally (Weiler, 2016; Weiler & Kim, 2011). Despite the value of this role, to date the tourism literature has paid limited attention to the effect of guide-tourist interaction on local brand advocacy (Yang Liu et al., 2021). As a sustainability interpreter, it has been argued that tour guides can positively influence tourists’ environmental awareness and environmental protection behaviour by providing information and explanation on topics and actions relevant to the sustainability of destinations (McGrath, 2007; Powell & Ham, 2008; Weiler & Kim, 2011). Other studies have explored the educational role of tour guides in enhancing tourists’ sustainability awareness and behaviour. This function includes improving levels of understanding and valuing of communities, cultures, and environments; influencing and monitoring on-site visitor behaviours; and fostering pro-conservation attitudes and post-visit behaviours (Francis et al., 2019; Rafique, 2020; Weiler & Ham, 2002).

To further enhance the sustainability awareness of tourists, tour guides may adopt two methods, direct and indirect control, to manage the sustainable behaviour of visitors and minimize harmful behaviour. Controlling tourist behaviours and mobility is known as direct control. This could mean stopping tourists from intruding into protected areas by requiring them to walk on designated paths, ensuring they do not leave behind trash, or preventing them from taking plants and animals out of a park. If tourists behave badly or destroy tourist facilities, tour guides can directly report these illegal activities to the relevant management organizations (Güzel et al., 2020; Pereira & Mykletun, 2012). Concerns have been raised about

whether tour guides may be empowered to restrict the number of tourists in visiting groups and to set punishments for negative behaviours (Alazaizeh et al., 2019; Jacobson, 1992; Jamaliah et al., 2021). Nevertheless, these direct intervention strategies can only be executed by tour guides who have jurisdiction to enforce authorized laws and regulations. The direct control approach may be challenging or ineffective, especially when tour guides don't describe or present desired behaviour to the tourists or lack the empowered authority for effective management of the group (Weiler & Kim, 2011).

Indirect control by tour guides includes educating and informing the tourists by interacting through amicable communication and persuasive presentation or interpretation (Boren et al., 2008; Chen et al., 2018). For example, research indicates that tour guides with positive attitudes can influence tourists to engage in pro-environmental behaviour and can facilitate tourists long-term learning (Hanafiah, 2021; Jamaliah et al., 2021; Serenari et al., 2012). De la Barre and Weng also argued that tour guides can enhance visitors' understanding through focusing on place identity and authenticity in their interpretation (de la Barre, 2013; Weng et al., 2020). There is also evidence that tour guides can use interpretation to engage with visitors in ways that encourage the tourists to feel empathy with nature or cultures (Weiler & Black, 2015; Weiler & Walker, 2014). Interpretation has been widely acknowledged as one effective indirect control approach to persuade tourists to follow the principles of sustainable tourism and behave in a sustainable manner. Hu and Wall (2012) designed a framework for tour guides to promote sustainability through four diverse pathways: providing interpretative information, directional interpretation, behavioural interpretation, and educational interpretation.

Despite the potentially positive impacts of tour guides, a significant obstacle lies in the inadequate understanding of the sustainable tourism concept among tour guides, particularly in many developing nations. Such guides often perceive sustainable tourism as a lofty academic or political construct, distant from their daily duties, and are uncertain about how to translate this idea effectively to their clients. In some instances, guides might fear that promoting conservation or supervising visitor behaviour could potentially offend their guests, jeopardizing the economic viability of their tours (Weiler & Black, 2015).

Another challenge lies in the accurate assessment of the tour guides' contribution to

elevating tourists' comprehension and influencing their behaviour, which may discourage tour guides' engagement and enthusiasms. Black et al. (2018) suggested that measuring a proficient tour guide's impact on enhancing tourist experiences through interpretation presents significant challenges. This difficulty is even more pronounced when assessing the intangible sustainable outcomes, like enhanced understanding and positive attitudes toward conservation, that are attributed to the guide's influence.

From the perspective of research theory and method, there is still limited research exploring this question. Little evidence exists of the use of training and quality assurance to enhance the links between guiding and sustainability (Viñals et al., 2021). The links between guiding and environmental sustainability are more strongly established than the links between guiding and sustainability with respect to economy and culture. As tourists are now demanding higher quality experiences, social responsibilities, emotional engagement, and personal development, guides may need to develop skills as change agents to meet their personal growth and convey destination sustainability (Weiler, 2016).

2.4.3 Tour Guide Training

Training systems for tour guides can directly improve their standard of guiding and professionalism (Mykletun, 2017). When guides are properly trained, they can significantly enhance the satisfaction of tourists, indirectly boosting the local tourism economy. For instance, Australia has highlighted concerns about the quality of service provided by untrained Mandarin-speaking tour guides, and their impact on the experiences of visitors. This is essential for attracting more Chinese visitors and fostering higher levels of satisfaction and spending based on the results of a project conducted by the Australian Department of Resource Energy and Tourism in 2013. Moreover, the recruitment and training phase should focus not just on technical skills but also on instilling ethical practice, as it can greatly impact tourists' evaluation of experiential quality (Luo et al., 2021). Researchers have pointed out that a lack of training may result in insufficient awareness of new information, resources, and skills, which may culminate in future unethical guiding practices, poor guide performance, low visitor satisfaction, and damage to the destination image (Kong, 2012; Mak et al., 2011; Weiler & Black, 2015).

However, not all tour guide training is the same. Hughes and Ballantyne (2001), for example, have noted that tour guide training has been shown to vary considerably in terms of destinations, providers, trainees, and training content, as well as in assessment systems. An international study by the World Federation Tour Guide Association (WFTGA) spanning 61 countries found that 45 of them delivered considerable variability in guide training. Many program providers, including employers and administrative departments, tend to focus on the managerial and vocational training aspects and are inclined to design the content based on their own experiences and observations rather than on wider conceptual information (Wang et al., 2007; Arias Hidalgo, 2019; Weiler & Ham, 2002).

Furthermore, it is crucial for tour guides themselves to actively participate in this training system. Entry requirements, such as minimum education and literacy levels, might vary based on the sponsor of the program and other factors, particularly in developing countries (Weiler 2016). Ham and Weiler (2003) pointed out that the initiative for training should come from guides themselves and communities rather than being imposed by external stakeholders or tourism authorities. Indeed, studies have shown that tour guides in many developing countries, including Costa Rica, China, and Nepal, are actively seeking to improve their levels of qualification through training, thereby achieving higher service standards and increased recognition from visitors (Mak et al., 2011, Jacobson & Robels 1992, Huang 2010). This underscores the potential for collaborative learning and knowledge transfer, highlighting the need for train-the-trainer and capacity-building programs.

The training content and approaches used in training programs play a significant role in determining the effectiveness of the training system. Black Rosemary (2005) proposed an innovative 10-element performance-based certification program for tour guides. This program emphasized the importance of training in interpretation and communication roles as the key elements, and public speaking skills such as voice projection, and eye contact. Fundamental knowledge and skills necessary for effective tour guide training include the ability to meet visitors' expectations, possessing comprehensive knowledge of the destination and local products, and accurate commentary. Other elements also entailed sensitivity to cross-cultural diversity, delivering enjoyable educational messages, and mastery of presentation skills.

Additional training skills for the important role played by tour guides, particularly in developing countries, have primarily focused on hard skills such as vehicle and boat operation, map reading, first aid, group safety, and outdoor recreation competencies (Weiler & Black, 2015). Hughes and Ballantyne (2001) argued that the development of training material and content for tour guides should be a collaborative effort involving academics, researchers, trainers, and shareholders to realistically reflect the demands on guides and the working conditions of the profession. However, these training approaches fail to consider the complex nature of guiding and its relevance to cultural contexts and individual learning capacities (Mason & Christie, 2003). A literature review together with a small pilot study were carried out to identify the types of ecotour guide training currently being delivered in less developed countries, and to highlight some key issues and research priorities, such as the guest language training needs addressing, undertaking both informal and formal systematic evaluations of training (Black et al., 2001).

Tourism sustainability has long been a part of training but to date has lacked a systematic approach. The first course, offered by the Galapagos Islands National Park in 1971, aimed to provide interpretation to ensure minimal impact behaviour among visitors (Britton & Clarke 1987). Subsequently a few tour guide institutions in developed countries have integrated sustainability into their curricula to boost tour guide professionalism, such as the EU INNOGUIDE Project 2013. Other professional tour guide schools, such as the Savannah Guides Limited (SGL) based in Northern Australia, provide continuous learning, practical training, mentoring, certification and standards of professionalism facilitating the local tour guiding industry, and contributing to the protection of the natural environment (Carmody, 2013). There is growing demand for more research into lifelong learning, and psychosocial roles for tour guide training, particularly in the area of tourism sustainability (Brito, 2020; Mykletun, 2017). The education of guides is “the greatest resource to achieve sustainability goals, the voice of tourist guides as informal educators is an innovative tool for transferring sustainable principles to inspire tourists and potentially influence changes in behaviours and attitudes” (Mykletun, 2017, p. 359). According to Weiler (2016), while enthusiasm for using training and quality assurance schemes to enhance the links between tour guiding and sustainability certainly exists, there is limited empirical evidence to support the effectiveness of this

approach.

Identifying and developing appropriate assessment methods for training programs is crucial. Utilizing a variety of assessment techniques is worthwhile and should be adopted (Weiler 2016). Weiler and Ham (2002) have developed tour guide training evaluation in Central and South America using pre- and post-training questionnaires that allowed the trainee to self-assess their own competencies, complemented by examination of the guides' reflective journals. Two sets of evaluations, combining questionnaires and interviews, were conducted by Ballantyne and Hughes (2001) on ecotour guide training, the first immediately after the training, and the other one month later. The first evaluation was conducted by describing the important things these guides had learnt through the training process, and whether and how they had changed their views on guiding. The second evaluation employed a questionnaire posted to participants approximately one month later to ascertain whether their perceptions and use of different guiding techniques had changed because of training. Weiler and Black (2015) suggested that systematic testing with longitudinal evaluation in their workplace should be considered.

Most of the education and training literature about tour guiding is descriptive, with little devoted to model and theory building. No studies have investigated how training can impact the meta-cognitive skills of guides in the literature (Güzel et al., 2020). However, there is some evidence suggesting that mindfulness training can improve tourist management skills (Moscardo, 1997). This suggests the possibility that tour guide training could also incorporate mindfulness training to enhance the ability of guides to influence tourists.

2.4.4 Tour Guides Research in China

China has a substantial tour guide community, yet there is relatively little research in this field. Pre- Covid, China had 1 million tour guides who had played essential roles in guiding tourists to travel domestically and outbound and post Covid numbers are said to be returning to these levels. In terms of some outbound travel regulations, Chinese visitors cannot venture outside China on an approved destination holiday without an accredited guide (Black, 2016). Most of the relevant literature in Chinese is focussed on the various roles in guiding visitors travelling domestically in Chinese, while less research on Chinese guides has been discussed

in the English literature.

Among the limited English literature articles on Chinese tour guides, the majority has focused on outbound tours with cross-cultural interactions. For example, an assessment of the performance of Hong Kong's tour guides, as perceived by the mainland Chinese outbound visitors in 2004, focussed on identifying distinct service quality attributes (Zhang & Chow, 2004). Some Chinese tour guides inbound to Australia have been examined for their cultural mediation roles. This research noted a limited ability in bridging their cognitive understanding and knowledge of Australia, due to their insufficient interpretation skills (Weiler & Yu, 2007). Xu and colleagues (2012) found that Chinese tour guides were inclined to discard Western interpretation norms, leaning into using extensive cultural context such as legends and poetry at the expense of scientific accuracy, aiming to contribute to visitor satisfaction and experience. A recent study analysed the multiple roles of tour guides in dilemmas in interactions between local Chinese tour guides and tourist groups in a foreign shopping context (Zhu & Xu, 2021). Their roles shifted from being a Chinese "sibling" to earn trust from the tourists initially, to a local cultural interpreter delivering authoritative information, thus concealing their hidden agenda as a shopping broker to gain commission.

The unique Chinese linguistic culture was also an important guiding feature discussed in the research. Dioko et al. (2013), for example, conducted a sociolinguistic analysis of the communication techniques employed by Chinese tour guides during their interaction with English-speaking tourists. These guides employed proverbs, metaphors, analogies, similes, and humour to interact with tourists, and their discourse not only mirrored their wit and wisdom, but in large part stemmed from their intent to maintain China's face, the traditional social, political, and economic order. As Woods and Moscardo (2003) pointed out, there can be much variation even within a culture at the macro level of a nation, especially one with the size and complexity of China. It is incumbent upon tourism academics and researchers to further explore how Chinese tour guides implement their language abilities in disseminating Chinese culture domestically and internationally (Luo et al., 2021).

Chinese tour guide administrative training system

In Chinese tour guide regulation system, two types of training make up the main training

system for national tour guides. Pre-vocational training, typically provided by the local tourism departments or commercial training agencies, assists the attendees to pass the national tour guide qualification examinations (Luo et al., 2021). These training courses cover basic guiding knowledge, tourism regulations, and practical simulation training. The other type of tour guide training, called in-service training, is provided by local tourism departments or travel agencies, and focuses on service quality enhancement and problem-solving (Huang et al., 2010). For example, when public discussion of the ‘uncivilized’ or ‘deviant’ behaviour of outbound Chinese tourists emerged some special training courses, such as “regulations for guiding tourist behaviour”, were organized by tourism departments (Luo et al., 2021). Despite some research suggesting new policy directions for tour guide management in the training and certification system in China (Huang et al., 2010; Kong, 2012), few of them have discussed guide training relevant to supporting sustainable tourism.

The tour guide training system in China is heavily influenced by the country’s political context. According to Huang and Weiler (2010), Chinese tour guides are often praised as "folk ambassadors" in China's foreign affairs, undergoing rigorous training to present politically acceptable standpoints and accurately impart national policies and regulations. This training content appears to be more aligned with political narratives than visitors' needs or research-supported effective guiding practices. Dioko, Harrill et al. (2013), and Zhu and Xu (2021) found that Chinese tour guides not only use communication to manage tourist behaviour, but also actively participate in and uphold the local economic regime as political actors. The Chinese government demonstrates great interest in guide training in other countries, like Brunei, using it as a means of propagandizing their culture and ideology reported by *Asia News Monitor* in 2020. Huang and Weiler (2010) observed that the lack of motivation among guides to pursue advancement through the classification systems, from basic to advanced levels, is primarily due to the absence of a connection between these levels and remuneration, alongside minimal incentives for professional development. Overall, there is a notable gap in research regarding how guide training systems can bolster personal professional competencies, particularly with respect to promoting sustainable tourism.

Chinese tour guiding performance with sustainability

Few articles have fully discussed Chinese tour guides and their relationship to sustainability. Weiler (2010) noted that both the delivery of environmentally and socially responsible messages and the monitoring and mediating of visitors' sustainable behaviour have been neglected in China. In Huang's (2010) study of 35 attributes used to evaluate Chinese tour guide performance, the items concerning with sustainability, such as, "the knowledge of the destination's culture", "emphasize understanding the culture of customers", and "encourage the introduction of reliable shops to customers", all revealed a low mean performance ranking by both Chinese and foreign visitors (Huang 2010).

Goodier (2017) in the *Encyclopedia of Sustainable Tourism* highlights a shift in contemporary tourist demands, moving from simply observing local attractions to engaging with them in a respectful and responsible manner. In response to this change, tour guides must evolve beyond their traditional roles of merely disseminating information. They need to transform into agents who not only provide services but also engage in more interactive, enriching roles. This includes posing thought-provoking questions to tourists and encouraging them to discover their own interests and the significance of their experiences. Such an approach aims to foster deeper engagement with activities that respect natural and cultural resources and promote the consumption of local and authentic products (Ren et al., 2023). Nonetheless, identifying the optimal timing and approach for this transformation poses a significant challenge for tour guides. Specialized training programs could be developed to help shift their traditional and fixed mindsets. Furthermore, incorporating new knowledge, such as principles of tourism sustainability, is essential for broadening their perspectives.

2.5 Mindfulness theory and its application in tourism

2.5.1 The different schools of mindfulness

Mindfulness as both a psychological and spiritual term has become very popular, especially in the areas of commercial wellness in western society. In recent years, meditation

based on various Asian spiritual practices has been marketed in western communities as mindfulness. This has attracted numerous consumers and resulted in commodification of mindfulness as a wellness product. This has been labelled McMindfulness, a fast, low value product, which is easily consumed (Hyland, 2017). It has been argued that mindfulness has borrowed the practice of meditation from Buddhism “without embracing the entirety of Buddhism” (Kabat-Zinn, 2017).

In Western psychology, mindfulness can be divided into two main discourses, meditative mindfulness, and socio-cognitive mindfulness. Some have argued that the term mindfulness is a translation of the Buddhist term "sati" (Nhat, 1987) and that this underpins the psychology-based mindfulness traditions and the existence of two streams of mindfulness, Buddhist doctrine-based meditative mindfulness and Western psychology-based mindfulness. Meditative mindfulness was developed from the Hindu yoga meditation practice, which was then applied as a therapeutic approach to manage pain in medical patients. A proponent of this, Kabat-Zinn was a biochemist who was interested in and developed meditation as a pain management technique. Kabat-Zinn (2003) then labelled this as mindfulness and disseminated this practice to the wider community of wellbeing practitioners. By way of contrast, Socio-cognitive or Langerian mindfulness, which has no ties to Eastern spiritual practices, is seen as a psychological state which may also be applied for healing the psychological problems of patients but extends beyond that (Chen, 2015; Ellen J. Langer, 2000). In general, both styles of mindfulness are treated as ongoing psychological processes linked to the quality of consciousness involving self-regulation of attention and focusing on the present (Brown & Ryan, 2003).

2.5.2 Socio-cognitive mindfulness and mindlessness

The mindfulness and mindlessness concepts that originated from Harvard professor Ellen Langer are based on dual processing theory in psychology. Dual Processing Theory (Evans, 2008) proposes that in any given situation individuals will be in one of the two possible cognitive states. The first or type one state is shallow, fast, automatic with heuristic thinking

as an example of mindlessness. The second or type two state is deep, slow, deliberate with systematic thinking as an example of mindfulness.

Mindlessness

Mindlessness is a state in which behaviour is governed by routines or habits, relying on past experiences rather than active and deliberate processing of the current situation. People can be trapped in a single, rigid routine, and are reluctant to seek alternative options or actions (Ellen J. Langer, 2000; Hulsheger et al., 2013). There are two basic antecedents to mindlessness. The first path to mindlessness is familiarity and repetitive situations. An individual is hardly aware of the mindless state because they are too familiar with something they frequently encounter. Furthermore, simple repetitive situations will provide people with an opportunity to quickly learn a routine, and then drop into in a mindless state. A second path to mindlessness refers to premature cognitive commitment. Even in some novel situations, people could become mindless because they may acknowledge that the available information is irrelevant or unimportant to them, so they adopt their previous knowledge to deal with the new situation. It may also be because they are likely to accept or borrow some definitions or stereotypes unquestioningly from elsewhere to explain this new situation (Carson & Langer, 2006; Lieberman, 1997). Put simply, mindlessness is the application of yesterday's methods to solve today's problems.

Mindfulness

In social psychology, mindfulness refers to a state of mind in which people are self-controlled and able to create novel distinctions, apply multiple perspectives, and actively process information relevant to the situation they face (Langer, 1989). The process of drawing novel distinctions can lead to diverse positive consequences, including a greater sensitivity to one's environment, more openness to new information, the creation of new categories, and enhanced awareness of multiple perspectives in problem solving (Bishop et al., 2004; Langer et al., 2010). Table 2.3 summarizes the characteristics, antecedents, and outcomes of mindlessness versus mindfulness.

Table 2.3:***Comparing Mindfulness and Mindlessness***

	Mindfulness	Mindlessness
Antecedents	New and uncertain settings Immersed in experiences Varied and changeable situations Creating new categories	Use of past information Little attention to the setting and details Rigid and invariant behaviours Repetitive situations Simple behaviours
Key features	Attention to the settings and awareness of details New routines Effective retention of information	Little control No personal relevance Limited processing of new information
Outcomes	Learning Feelings of control Achievement Satisfaction Ability to deal with problems Better decision making Better memory Attitude change	Less learning Poor recall Feelings of helplessness and incompetence Dissatisfaction Poor decision making

Note. Adapted from (Carson & Langer, 2006; Langer, 1989; Lieberman, 1997; Moscardo, 2022b; Pagnini et al., 2018; Pirson & Langer, 2015)

Mindfulness has been found to have positive benefits when applied in education, business, and health (Ellen J. Langer, 2000; Langer et al., 2012; Pirson et al., 2012). In psychological health, mindfulness has been used to increase one's perceived control and engagement in the surroundings (Langer, 2014; Carson & Langer, 2006; Hulsheger et al., 2013). Professional mindfulness programs in psychology such as Mindfulness-Based Stress Reduction (MBSR) and Mindfulness-Based Cognitive Therapy (MBCT) have contributed greatly to psychotherapy, behavioural health, and behavioural medicine (Bishop et al., 2004; Kang & Whittingham, 2010). In business and marketing, mindfulness can bring about loyal and satisfied customers, and productive and fulfilled employees (Ndubisi, 2012, 2014). Langer explored the positive consequences of mindfulness in educational contexts through comparing the different effects of mindless and mindful learning (Langer et al., 2012;

Lieberman, 1997). Through mindfulness training techniques based on exploring possibilities and different perspectives and introducing ambiguity, mindfulness can be developed as an enduring cognitive trait (Ritchhart & Perkins, 2000).

2.5.3 Mindfulness applied in tourism

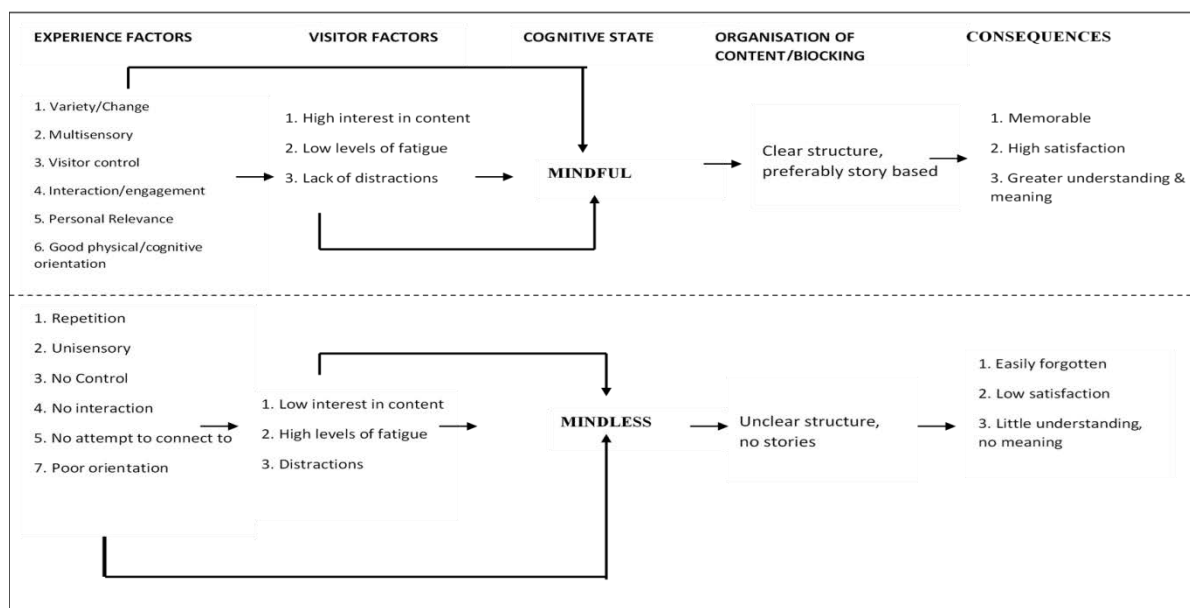
Although Langerian mindfulness was introduced into tourism by Moscardo in 1996, fewer than 30 articles have been published on mindfulness in tourism. While there have been some papers on other types of mindfulness (Stankov et al., 2020), Langerian mindfulness occupies the main part of tourism research into this concept (de Guzman et al., 2019; Dharmesti et al., 2020).

Moscardo's mindfulness model

Most of the applications of Langerian mindfulness in tourism have been based on the earlier model of mindfulness and mindlessness of museum visitors by Moscardo in 1992. Moscardo (1996) argued that mindfulness could be encouraged through combinations of situational variables and personal variables. The situational variables included offering choices to visitors, using themes, and designing settings to encourage individuals to engage and immerse in more interactive situations. The personal variables included personal interests and motives, familiarity with the setting and fatigue. Moscardo has applied this approach to interpretation developing a mindfulness model as set out in Figure 2.2.

Figure 2.2

A model of mindfulness and mindless for tourists



Note. Adopted from (Moscardo, 1999, 2022b)

The model in Figure 2.2 proposes two sets of factors, communication factors and visitor factors (Moscardo, 1997). Together these can predispose a visitor to be either mindful or mindless in a tourist setting. The addition of story-telling interpretation was included as an additional way that interpretation can be used to encourage mindfulness (Moscardo, 2022b).

Setting factors that encourage mindfulness

The setting or communication factors in the model, as the key antecedents of mindfulness include providing variety, helping visitors find their way around, telling a good story, and connecting to visitors (Moscardo, 1999). These factors are then further discussed from the perspective of situational interventions such as communication systems, interpretive practice, guided tours, and printed material. The interventions have been assessed as both antecedents and mediators supporting the state of mindfulness (Dussler & Deringer, 2020; Frauman & Norman, 2004; Noor et al., 2014). In terms of physical settings in situational interactions, studies have been conducted in natural and cultural heritage destinations, like Malacca, George Town, and national parks, and small food exhibitions, hotels, or local coastal parks (Lee & Kim, 2018; Md Noor et al., 2015; Van Winkle & Backman, 2008). In terms of other communicative interactions, interpretation and storytelling techniques have been argued to be effective methods to induce mindfulness with the outcome of improving tourists'

experiences (Dussler & Deringer, 2020; Eck et al., 2022; Moscardo, 2017; Moscardo & Pearce, 1986). Mindful interpretation strategies are proposed as low-cost investments that may yield significant interpretation value during and after use (Eck et al. 2022). Although this mindfulness model has been primarily studied within English-speaking contexts, There is one study that has explored it in Chinese settings using a quantitative survey conducted with tourists at the Forbidden City (Eck et al., 2023). This study reported that authenticity significantly influenced mindfulness, and mindfulness significantly influenced tourists' experience.

Visitor factors that encourage mindfulness

The visitor factors related to mindfulness include high interest, and low levels of fatigue (Moscardo, 1997). There is evidence that motivation to seek information, preference for participation, and previous experiences may encourage mindfulness across a range of different types of people, such as backpackers, visitors to events, natural park interpreters, and hospitality frontline employees (Chen, 2015; Dussler & Deringer, 2020; Johnson & Park, 2020; Van Winkle & Backman, 2008). Noor et al. (2015) has also determined that demographic variables such as age, gender, education, and nationality are not relevant to mindfulness in natural settings, further supporting the model. Tour guides, as key stakeholders in tourism, have unique opportunities to influence guests. If guides embrace mindfulness, it is possible that their influence on tourists could be significantly enhanced.

Positive effects of mindfulness in tourism

The theory predicts that mindful visitors or tourists will display a greater sensitivity to one's travelling environment, more openness to new information, and be more creative. Mindfulness has been shown to enhance understanding, increase interest in settings and engagement in learning, improve satisfaction with travelling experiences, and minimize negative impacts (Noor et al., 2015; Moscardo, 2017). Loureiro et al. (2019) and Lee and Kim (2018) showed that mindfulness can have a positive effect on happiness, memory, and behavioral intentions. These positive effects have been used to remind the stakeholders, like

events managers, lodgings, museums, as well as DMOs, to pay attention to the needs of mindful tourists who are keen to experience and immerse themselves in the destination more intensively than less mindful tourists (Barber & Deale, 2013; Loureiro et al., 2019; Van Winkle & Backman, 2008).

Mindfulness enables tourists to become more aware of their behaviours, and this can increase appreciation of sites visited by tourists. Mindfulness theory has been used to investigate the effect of authenticity and mindfulness on the Chinese tourist experience of cultural heritage and their satisfaction and loyalty and this research has demonstrated that the perceived authenticity of a heritage site can directly and positively influence tourists' mindfulness (Eck et al., 2023). Ester et al. (2022) integrated several positive psychological factors including well-being, and mindfulness, and proposed their internal effects to fulfil one goal, developing meaningful tourist experiences. However, the specific process of cultivating mindfulness among visitors requires further elaboration.

2.5.4 Mindfulness and Sustainable Behaviour

Mindful customers who engage in sustainable behaviours have been discussed in marketing literature. That mindful customer is premised on a consumer mindset of caring for self, for community, and for nature. This converts the self-defeating excesses of acquisitive, repetitive, and aspirational consumption into more sustainable consumption (Sheth et al., 2010). Mindfulness has been presented as a consumer characteristic mitigating the negative environmental effects of overconsumption. These findings indicate that higher mindfulness is correlated with greater awareness of the environmental and cultural impacts of one's behaviour and decisions (Fischer et al., 2017; Geiger et al., 2019; Helm & Subramaniam, 2019; Yilmaz & Anasori, 2022).

In recent years research in tourism-related contexts has witnessed an increased application of the mindfulness concept wherein many researchers have studied the impact of mindfulness in responsible tourism and sustainability (Barber & Deale, 2013; Caruana et al., 2014; Moscardo, 2017; Stankov et al., 2020; Taylor & Norman, 2018). Moscardo (1999) initially

argued that mindful visitors would be more inclined to visit local attractions and sites as well as pay a return visit later and recommend the destination area to their friends. In addition, these visitors would tend to engage in more environmentally responsive behaviours during their visit. There is some evidence to support these claims. The construct of mindfulness is ascribed to individuals generating a comparatively greater awareness of their surroundings (Langer and Moldoveanu 2000) and a tendency to practice ethical consumption (Sheth et al., 2010). Barber and Deale (2013) have indicated that assessing guests' mindfulness helps hoteliers make those guests aware of and responsive to hotels' sustainability practices. Caruana et al. (2014) found that tourists who engaged in mindful minimizing for their travel choices also embraced a high level of engagement with responsible behaviour. The five facets of mindfulness have also been analyzed in terms of their connectedness to nature and pro-environmental behaviour to gain greater insight into the association between mindfulness and pro-environmental behaviour (Barbaro & Pickett, 2016). Taylor and Norman (2019) concluded that tourist mindfulness in the 'anticipation phase' has significant positive influences on confidence, satisfaction and loyalty for a destination which can be leveraged by the tourism destinations in encouraging more mindful trips. In research by Yilmaz and Anasori (2022), mindfulness was found to be effective for encouraging sustainable attitudes in residents, but it had no significant direct effect on environmentally responsible behaviour (ERB). They also explored whether there was an indirect-only mediation effect and found that sustainable attitude was linked to ERB through enjoyment of nature. More literature employs the antecedents of tourists' sustainable attitudes by integrating several cognitive theories, including mindfulness, risk perception and affective factors, including travel fear and anxiety, to evaluate their relationships with travel behaviours (Kalra & Taneja, 2022). Additionally, some studies have demonstrated that both trait mindfulness and temporary states of mindfulness increase tourists' preferences for pro-environmental behaviours such as choosing more sustainable hotels, and in a reduction in the influence of materialism on guests (Errmann et al., 2021).

Research into the benefits of mindfulness training for interpretive staff is also emerging. In one study trainee interpreters of university students participated in a 4-week Langerian

mindfulness intervention program that encouraged participants to expand their senses to better appreciate the animals that inhabit a natural area of interest and used in-depth story sharing and focus group discussions between weekly meetings about pro-environmental topics. Nature Sketching, Noticing Walks, and Nature Journaling were used to encourage participants to notice change and nuances of space in different time, light, weather, and season. The results from the interview of the interpreters indicated that this mindfulness intervention in natural areas had enhanced personal experiences of nature and created more authentic interpretive experiences for their program attendees (Dussler & Deringer, 2020). Meditative mindfulness training has been used with frontline employees in tourism, which may aid in the regulation of emotions and reduce or prevent employee burnout or emotional labour while increasing levels of work engagement (Johnson & Park, 2020). Although it is often claimed that mindfulness can assist staff development in tourism, few cognitive-psychology mindfulness programs have been used in the training of tour guides, even though guides serve as a crucial link between tourism destination and visitors. By embracing the fundamental tenets of mindfulness, these guides could develop skills to convey sustainability insights to the visitors, using multisensory interpretation and immersive storytelling skills. Consequently, the visitors under the guidance of such trained guides might be more likely to exhibit more sustainable behaviour during their visit.

2.6 Summary

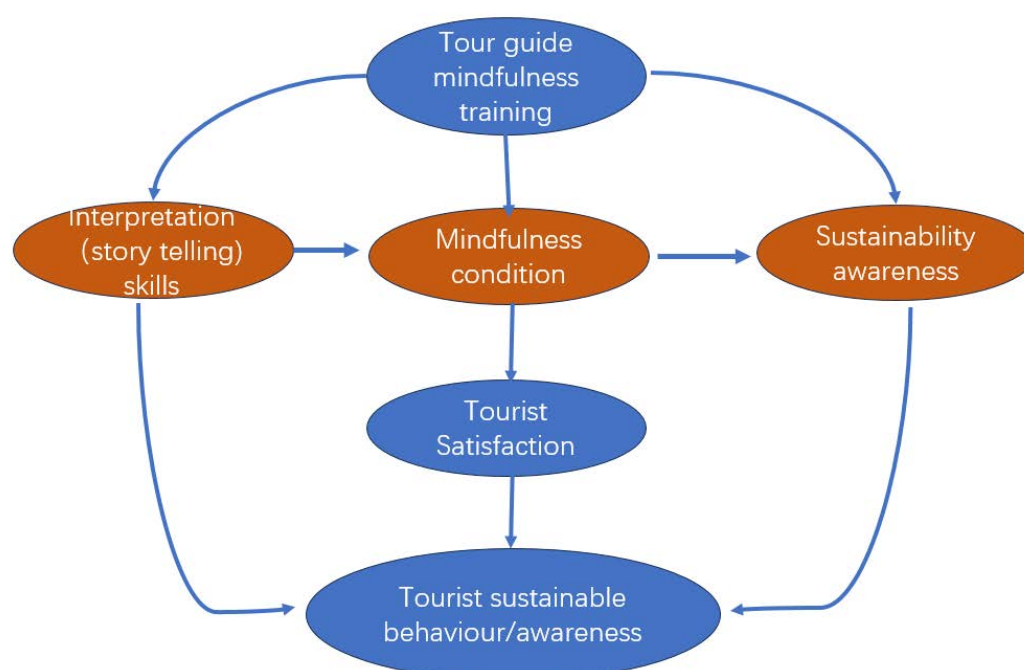
Tourism sustainability is a long-term goal for the tourism industry and society as a whole. Mindfulness training based on cognitive psychology mindfulness theory has been shown to be extremely effective in encouraging people to be more open, interactive, and communicative in novel and changing situations. Mindful tourists have been shown to have positive responses to the environment and society. With respect to situational settings, the influence of interpretation and tour guides on tourists can improve travel experiences, satisfaction, and sustainability awareness. To date neither sustainability nor mindfulness has been widely incorporated into tour guide training. This is especially the case with Chinese tour guides and Chinese tourists. Therefore, the overall aim of the present research is to recruit Chinese tour guides into a Langerian mindfulness and sustainability training program exercise, and then to

explore whether and how these mindful tour guides positively influence tourists and improve their sustainability awareness through their interpretation actions in the field.

Figure 2.3 summarizes and connects the key concepts that have been reviewed thus far and provides a preliminary descriptive framework for the thesis research. The preceding literature review provides some evidence that tour guides can influence tourists' sustainable behaviours through their interpretation. However, this relationship is likely to be influenced by tour guide training in interpretation techniques, sustainability knowledge and tour guide mindfulness. This thesis aims to explore these relationships in more details.

Figure 2.3

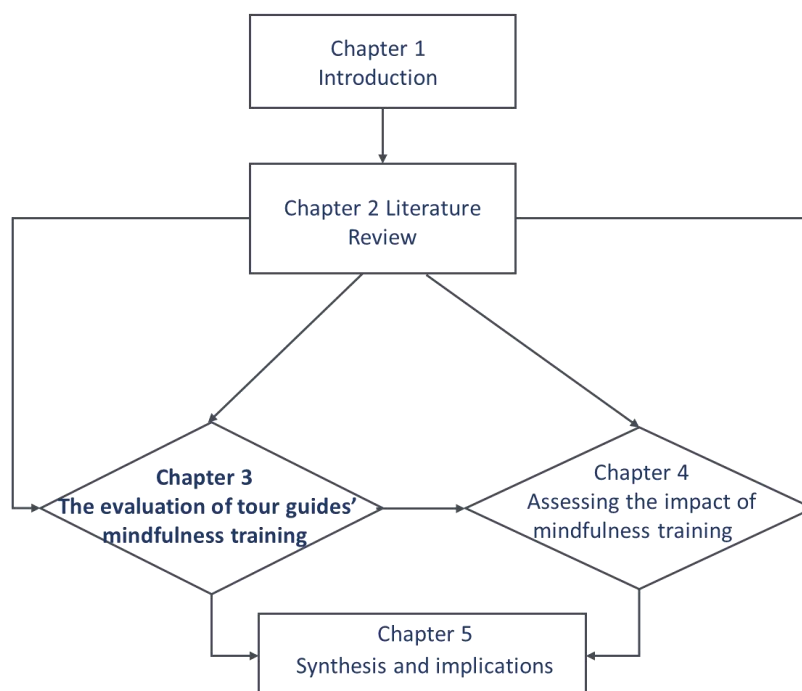
A Mindfulness and Training Framework for Tour Guide Interpretation for Sustainable Tourist Awareness and Behaviour



The first study conducted in this thesis addresses Question 1: To what extent does a tour guide training program implementing mindfulness techniques and focusing on sustainability education encourage tour guides to become more mindful and to change their interpretive practices to focus more on sustainability at and beyond the visited place? This question is

focused on the first two layers of the framework in Figure 2.4. A mindfulness training program was developed with a focus on three main components, exercises to encourage mindfulness in general in the participating tour guides, information about sustainability and tourism, especially tourist behaviour, and suggestions for enhancing storytelling skills as a key mindfulness supporting interpretative strategy. This first study evaluates the effectiveness of the training program in all these three areas. The second study focuses on the bottom two layers of the framework in Figure 2.4 addressing the other two research questions - Question 2: How do the interactions with tourists by tour guides who have had mindfulness-based sustainability training differ from those who have not been trained? and Question 3: If and how do the trained tour guides encourage more sustainable awareness and action in tourists? This second study compares the performance of trained and untrained guides leading tours in the field. This study focuses on differences between these two groups in terms of tourist satisfaction and awareness of sustainability issues and behaviours.

Chapter 3 The evaluation of tour guide mindfulness and sustainability training



3.1 Introduction

This chapter presents the first research study, addressing the first research question in this thesis: To what extent does a tour guide training program introducing and developing mindfulness techniques and sustainability information encourage tour guides to become more mindful and to change their interpretive practices to focus more on sustainability? This chapter will examine the impact of a socio-cognitive mindfulness and tourism sustainability training program on a group of Chinese tour guides. This chapter is situated within the intersection of mindfulness and professional guiding development, scrutinizing how socio-cognitive mindfulness theory and personal practices could encourage tourism sustainability awareness and professional efficacy in tour guides. It examines the proposition that mindfulness and sustainability training can significantly enhance tour guides' understandings of mindfulness theory, enriching their engagement with tourists, reinforcing their adaptability in various settings, sparking greater creativity in delivering tourism experiences, and fostering a more open and receptive approach to diverse guiding skills and adopting the concept of Western tourism sustainability.

These key factors of mindfulness were integrated into the design of four different training workshops and interactive online exercises as well as offline self-training activities. This training was specifically designed to elevate the Chinese guides' skills in interpretation, storytelling, and sustainability awareness, thereby equipping them with the tools to deliver more impactful and memorable tourist experiences. The training design sought not just to change knowledge and skills, but to change the way guides think and act, an area not previously explored with Chinese tour guides (Chen & Mo, 2013; Çokişler, 2022; Mason & Christie, 2003; Mykletun, 2017). The aim was to encourage mindful guides who adopted the perspective that they are not merely a communicator of site information, but an agent and practitioner of sustainable tourism focused on natural and cultural preservation in Chinese contexts. It was hoped that if trainee guides learn how to critique their own knowledge, attitudes, and behaviours they would be better able to offer their visitors something beyond a superficial introduction to a destination's environment and culture. The study sought to demonstrate the potential power of mindfulness-based sustainability training to influence, inspire and even change guides' behaviour and, through that, influence tourists' onsite behavior and post-trip understanding.

This chapter reports on an examination of how a mindfulness-based sustainability training program might change the Chinese tour guides skills and intended practices. This study focused on answering the first research question for the thesis as a whole: To what extent does a tour guide training program introducing and developing mindfulness techniques and sustainability knowledge encourage tour guides to become more mindful and to change their perspectives and intended interpretive practices to focus more on sustainability? To answer this first research question, the study evaluated a mindfulness-based sustainability training program in terms of the extent to which it encouraged greater mindfulness, more awareness of sustainability issues for guides and their guests, and intended changes to guiding practice to both incorporate mindfulness techniques and to more specifically address sustainability issues. Therefore, this study reported in this chapter had the following three more specific research aims:

Aim 1: To develop and integrate a mindfulness-based training program for tour guides.

This aim focused on creating a structured, cognitive psychology-based mindfulness training curriculum specifically tailored to the needs of tour guides. The goal was to integrate mindfulness practices that enhance guides' taking a different perspective in their thinking, as well as enrich their flexible guiding skills with novelty and enable them to serve as more effective intermediaries between the tourism destination and visitors. The researcher had applied external factors from Moscardo's (1999, 2022) mindfulness model (see Figure 2.2 in the previous chapter) such as using multiple senses in experiences, and personal factors, such as an interest in working and a lack of distraction, to encourage the development of mindfulness in the tour guides. The researcher discussed these factors with a tour guide advisory group, organized as part of the action research framework, to integrate the key elements into training exercises. The aim was to make the trainee guides understand the key variables to achieve mindfulness and to encourage them to implement these skills in their future work.

Aim 2: To evaluate the short-term impacts of the mindfulness training program in enhancing multisensory interpretation and storytelling skills of tour guides.

The second aim assesses the impact of mindfulness training on the ability of tour guides to employ multisensory interpretation and storytelling techniques in their tour guiding practices. This is based on the conclusions of previous literature suggesting that tour guides, equipped with training in mindfulness, are likely to interact with tourists differently compared to untrained guides. This research had explored how mindfulness enhances interpersonal communication skills, patience, and the ability to manage stress (Gelles, 2015). The results of other research indicated that mindful guides might be better prepared to tailor their interactions to the specific needs and interests of their visitors, thereby providing a more personalized and attentive experience (Bishop et al., 2004). Additionally, mindfulness appears to foster a greater level of creativity and openness (Kudesia & Nyima, 2015), enabling guides to share stories and information in engaging ways that resonate with tourists on a personal level, potentially making the experience more impactful and memorable. The training program

focused on storytelling skills as a key interpretive technique linked to mindfulness amongst tourists or visitors, to enhance the trainee guides' interpretation skills. By doing so, it sought to determine how such training influences their capacity to create an immersive and engaging narrative environment, utilizing all senses to deepen tour guides' experiences of tourism destinations.

Aim 3: To explore the short-term impact of the training program on guides sustainable tourism awareness and intentions to incorporate greater sustainability in their practices.

The final aim investigates how mindfulness training can equip tour guides with the necessary understanding to effectively communicate tourism sustainability concepts and behaviours to visitors. Regarding the third aim, the training program also included content about the Sustainable Development Goals (SDGs) and other sustainability concepts to the tour guides, helping them understand these concepts through case studies. The literature links mindfulness with a heightened awareness of one's environment and a more thoughtful consideration of one's actions (Ericson et al., 2014). A mindful Chinese tour guide may convey the significance of cultural and environmental conservation more effectively through compelling storytelling and interpretation, possibly leading to a deeper understanding and appreciation among tourists. This enhanced appreciation has the potential to translate into support for sustainable tourist behaviours, as visitors may be more likely to adopt practices that support preservation efforts in destinations (Hughes & Moscardo, 2023; Powell et al., 2018). Moreover, mindfulness is associated with the development of pro-social behaviours (Barrett et al., 2016), which can extend to environmental ethics. By embodying these principles, mindful tour guides can serve as role models, subtly influencing tourists to mirror these behaviours. An important goal of the training is to support a deeper understanding of and commitment to sustainable tourism practices among tour guides.

The rest of this chapter describes the methodology used to evaluate the training program, the design and administration of the training program and the results of the analyses of the effects of the training program on the participating guides.

3.2 Methodology

This research employed a quasi-experimental design focusing on a structured online training program tailored for Chinese tour guides working in the Anhui Province, China. The core of this study involved designing and implementing a training program emphasizing social cognitive mindfulness and tourism sustainability. Data were gathered using structured and open-ended questions in surveys conducted before and after the training intervention for these guides. Additionally, some open-ended questions and discussions with guides were utilized during and after the training program. The overall experimental design is consistent with that reported by Weiler and Ham (2002) and that suggested by Weiler (2016) for formal tour guide training evaluations.

The study could be described as a mixed method approach, as it combined quantitative and qualitative elements in the data collection and analysis. Incorporating mixed methods research into the study of mindfulness training programs offers a comprehensive approach to understanding the multifaceted nature of this field. Mixed methods research, as highlighted by scholars such as Greene and Caracelli (2003), Creswell and Clark (2017), and Johnson and Turner (2003), combines the strengths of both qualitative and quantitative methodologies to overcome the limitations inherent when each approach is considered in isolation. A mixed method approach is particularly advantageous in exploring the complex phenomena of, and outcomes from, mindfulness training where both the depth of guides' feedback (qualitative) confirmed with empirical data (quantitative) from mindfulness scales are crucial for a holistic understanding (Lu et al., 2022). The mixed methods approach also addresses specific drawbacks of purely qualitative or quantitative research. Qualitative research, while rich in detail, often faces challenges in hypothesis testing, researcher bias, and generalizability. On the other hand, quantitative research, despite its strength in generalization, can be reductionist and may not fully capture the nuances of human experiences (Brierley, 2017). Mixed methods research bridges these gaps by enabling quantitative data to assess and confirm qualitative insights, and vice versa, thus providing a more balanced and comprehensive perspective.

Although the research was mixed methods, it must be noted that most of the data collected in this study was qualitative, leading to a predominant focus on qualitative data analysis. These data include materials provided by guides as homework, interviews with each guide, and responses to the pre and post training questionnaires. Emphasizing a qualitative perspective, the research employed thematic analysis as its core methodology, as suggested by Scarduzio (2017). This approach allowed the researcher to uncover emic or participant views, providing deeper insights into the subjective experiences and perceptions of the individuals involved. By analyzing the data thematically, the researcher could identify recurring patterns, themes, and narratives that emerged directly from the participants' perspectives (Braun & Clarke, 2006; Christou, 2022; Dembovska & Zvaigzne, 2021). This method allowed for a more nuanced and detailed understanding of the underlying dynamics and complexities of the research subject. Consequently, the qualitative nature of the data and the thematic analysis methodology ensured that the study was grounded in the real-world experiences and perceptions of the participants, offering an authentic and rich exploration of the topic at hand (Berbekova et al., 2021).

3.2.1 Recruitment and participation

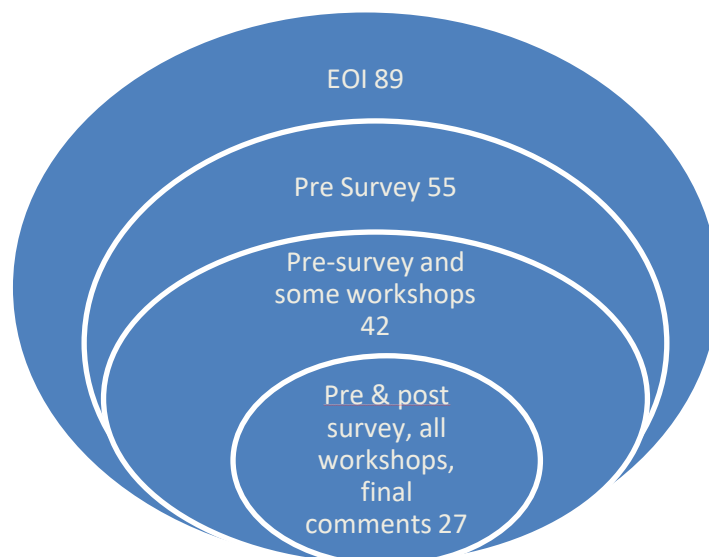
A purposive sampling technique was used to recruit tour guides from within Anhui Province in China. A maximum variation sampling approach was used to ensure the heterogeneity of tour guides across age, geographic location, different certification levels, years of experience working, and included both national and local guides. This variety was achieved by recruiting from the two biggest tour guide associations in the province where the research was situated – the Anhui Tour Guide Association and Huangshan Tour Guide Association, each of which has registered more than 2000 guides. Recruitment of volunteer participants was based on personal professional connections and sending a formal research invitation through the associations, both associations agreed to provide any necessary support. The researcher then designed a poster with an introduction of the outline of mindfulness training program as the invitation for participation. The poster introduced the general schedule and topics for the program, the introduction of the trainer who is also the researcher

with contact details, the aim of the program and the incentives for the trainees (see Appendix A). To attract as many guides as possible, compensation in the form of shopping vouchers worth 200 RMB for each participant (equaling 40 Australia Dollars) for the time taken to participate was promoted in the poster. The shopping vouchers were provided to the tour guides who completed all four workshops and submitted all the exercises and homework. At the end of the program, a training completion certificate was also provided to the tour guides. The poster was sent to the chairpersons of the two associations who subsequently shared it on the associations' websites and through their online communities.

As a result of these recruitment activities 100 full and part time tour guides expressed interest in attending the training. Of these, 89 tour guides then completed the registration form giving their formal consent to join the training program and evaluation study. From these eighty-nine tour guides, 55 were able to attend a pre-training survey session. These guides were divided into two groups, 31 in a full-time guide group and 24 in part-time guide group, who were invited to participate in the assigned online Chinese We chat Discussion Groups. The online mindfulness training program was then set up through Chinese online meeting platform, Tencent Meeting, and all training workshops were conducted on this platform. Considering the severe Covid-19 regulations in China during the training period, everyone was required to stay at home, and anyone suspected of contact with virus had to be quarantined in designated isolation areas known as "Fang Cang" for one week. Due to these inconveniences, the guides could not attend all four training workshops. Of the 55 guides who completed the pre-training survey, 27 completed all four training sessions and the post-training questionnaire and submitted their corresponding assessments through the online Chinese WeChat Group. These 27 tour guides served as the primary respondents for this study and further participated in a final online summary discussion to share their comprehensive insights on the entire training program (See Figure 3.1).

Figure 3.1

Numbers of guides in different stages of the study



To implement the action research framework, the researcher established a tour guide advisory group which consisted of two senior tour guides with extensive field experience and one university professor with academic and practical knowledge of the tourism industry. The primary function of this group was to engage in a collaborative brainstorming process with the trainer to provide feedback on the training sessions and advice to adjust the training exercises and homework for each round. The involvement of senior tour guides was crucial as they had a wealth of practical experience and firsthand insight into the daily realities and challenges of the tour guides. Their input was invaluable in pointing the difficulties and specific issues that tour guides encounter on the ground. This perspective ensured that the training program addressed real-world challenges and equipped guides with practical skills and knowledge relevant to the Chinese context. The inclusion of a tourism teacher added an academic dimension to the group. This member contributed a theoretical understanding of Chinese guiding practice and training and curriculum design, ensuring that the training program was grounded in best practices and researcher's theoretical frameworks. Their expertise in the tourism sector also helped in contextualizing the problems within a broader industry perspective, providing a more comprehensive understanding of the issues. The advisory

group's role extended beyond problem identification. They actively participated in providing guidance for the adjustment of the training program. This included suggesting training examples, and selecting exercises that were most relevant and effective for addressing the identified challenges of local tour guides. Furthermore, the group assisted in the evaluation of the training program. Their diverse backgrounds enabled them to assess the program from different perspectives – its practical applicability, educational soundness, and relevance to the current tourism landscape in China. Through this collaborative effort, the advisory group contributed to the development of a robust, and effective tour guide training program connecting the mindfulness and sustainability to actual practice.

Table 3.1:

Demographics of Twenty-seven Tour Guides Who Completed All Workshops

Demographics	Items	Frequency	Percentage
Gender	Male	13	29.6
	Female	14	70.4
Working type	Full time	17	63
	Part-time	10	37
Age	Below 25	1	3.7
	26-30	4	14.8
	31-40	17	63
	41-50	5	18.5
Level of certificate	Junior	11	40.7
	Intermediate	9	33.3
	Senior	7	25.9
Education	High School	2	7.4
	Vocational	9	33.3
	Bachelor	14	51.9
	Masters	2	7.4
Guiding experience	Less than 1 year	1	3.7
	1-3	2	7.4
	4-6	5	18.5
	7-10	5	18.5
	11-15	6	22.2
	Above 16	8	29.6

Table 3.1 provides a summary of the 27 guides who completed all the training session and all the data collection. The majority of the sample identified as female (70%), were fulltime guides (63%), aged between 31 and 40 years (63% with 18.5% older than 40 years), with

university qualifications (52%), and at least 11 years' guiding experience (52%) with only 11% having less than 3 years' experience. There was an even spread of level of guiding certification with 41% at the Junior level, 33% at the Intermediate level and 26% at the Senior level.

3.2.2 The contents, design, and implementation of the mindfulness training

The mindfulness training program was conducted over a four-month period from November 2022 to January 2023 and consisted of four training workshops along with one final summary group discussion. Each workshop was provided to accommodate both full-time and part-time tour guides, conducted at different times but ensuring identical contents. The program's final summary discussion brought together participants from both groups. The training content was designed based on the critical literature review of topics linked to mindfulness, tour guiding techniques, and tourism sustainability background as well as its understanding in Chinese contexts, and was confirmed with the thesis supervisors, as well as discussed with the tour guide advisory group (Bercovitz et al., 2017; Dussler & Deringer, 2020; Hughes & Moscardo, 2023; Kou et al., 2022; Langer, 1991; Luo et al., 2006; Maymin & Langer, 2021). In addition to the in-class content and suggested homework activities, the trainer provided additional material, such as short movies, videos, and industry news to enhance guide awareness of key elements of the training. The tour guides shared their individual comments on this material and the material prompted discussion of interesting topics. The recordings of the workshops were also provided and shared in the online groups after each workshop. The main content of the training was covered in four sessions. Session 1 covered mindfulness theory and offered exercises for general mindfulness training, Session 2 examined mindfulness theory applied in tourism, Session 3 focussed on Interpretation techniques, especially storytelling, and Session 4 addressed tourism and sustainability.

Session 1. Mindfulness theory and its general training

Task 1: Introduce the socio-cognitive psychology and two thinking systems

Discussion: Distinguish the mindful and mindless phenomena

Task 2: The characteristics of mindfulness and mindlessness

Exercise: The triangle task

Task 3: Mindfulness training

Exercise: Open your five- senses

Session 1 was designed to make the tour guides recognize mindfulness and mindlessness through an examination of some daily phenomena and implemented some classic training exercises to encourage their mindfulness. The session began by explaining the basic concept of mindfulness as it relates to social cognitive theory and dual-process theories of thinking. Dual processing can be demonstrated by contrasting system 1 and system 2 thinking. System 1 or Fast Thinking is an automatic, fast, and often subconscious way of thinking that is effortless, emotional, and intuitive, and responsible for snap judgments and quick decisions without much deliberation. System 2 or Slow Thinking is a deliberate, slow, and conscious way of thinking (Daniel, 2017; Evans, 2008). Mindfulness theory intersects with these two systems by promoting the engagement of System 2 over System 1. When individuals are mindful, they are more likely to engage in reflective thinking, deliberate on their actions, and make conscious choices, which is the essence of System 2. Conversely, a lack of mindfulness might result in a greater reliance on System 1, leading to more automatic and less deliberate behaviours (Anglin et al., 2008; Brown & Langer, 1990; Evans & Stanovich, 2013). Some visual illusion images and pictures highlighting social stereotypes were used to encourage the tour guides to develop a more open mind. Discussion of images such as the cartoon “Praying and Smoking” (Figure 3.2) was used to support the mindfulness and mindlessness distinction.

Figure 3.2

Praying or smoking as an example of mindfulness



Note. Sourced from MBB Vision (n.d)

The rules for achieving mindfulness as summarized by Langer (1989) were explained with some specific examples: being open minded (enhancing multiple senses in perception), creating new categories and expanding knowledge, welcoming new information, and focusing on the process before the outcome (Langer, 1991; Langer et al., 2012). This session then covered tasks based on these rules. These included the “Creative Triangle Task”, designed by Langer and her team (Bercovitz et al., 2017), a creativity-based tool for encouraging and measuring Langerian mindfulness. This task focusses on the active process of noticing new things and flexibly responding, thereby directly encouraging the central components of mindfulness. Initially, the researcher explained that the game involves making creative, mindful connections between the shape of a triangle and various related or unrelated objects or concepts such as a kite, square, mug, infinity, or a vowel. They were encouraged to share their thoughts in the meeting. One guide was invited to present his idea first to ignite others. After each round, the guides were given a moment to reflect on their thought process. How did they feel during the exercise? Was it challenging to make connections with these abstract objects? The tour guides actively discussed the importance of thinking from different perspectives in their future work and responded that these creative and mindful games could be played with guests.

Another open minded training activity was assigned as homework aiming to strengthen their multi-sensory experiences in daily life (Proulx et al., 2014) . The participants were advised to avoid labelling and categorizing what they see regularly, and instead, to notice the detailed colours, the patterns, or the textures of the objects. They were encouraged to pay attention to the movement of the grass or leaves in the breeze and try to view the world outside the window from different perspectives. Most of the homework submitted reflected their new perspectives based on things like observing the nuances of everyday objects and enjoying mindful eating of daily food. A classic exercise in mindful eating, specifically the mindful consumption of chocolate, was conducted online. This practice has been frequently utilized in socio-cognitive mindfulness training and to augment Buddhist meditation practices (Ashwell et al., 2017; Monroe, 2015). The trainer reminded each guide via WeChat to have a bar of chocolate ready for the first workshop. Initially, the guides were unaware of the chocolate's intended purpose, which sparked their curiosity about mindfulness. They then followed the trainer's instructions step by step: unwrap the chocolate slowly, observe its colour, shape, and any unique features; bring the chocolate close to your nose and deeply inhale its scent. Place it in your mouth, taste mindfully, and notice the changing textures and flavours. Ask yourself: What flavours stand out? Is it creamy, bitter, sweet, or tangy? Pay attention to how these flavours evolve. As the chocolate melts, move it around in your mouth. Take a moment to reflect on the experience. The guides were then asked to think about how they could adapt this type of exercise with their guests which could help tourists to enjoy the local cuisine during the tour. Additionally, some other interesting and creative homework assignments, such as taking photos or making diary entries, were shared for the homework to stimulate the mindfulness of other guides (see Appendix B for an example).

Session II. Mindfulness theory in tourism

Task 1: Mindfulness model applied in tourism contexts

Task 2 : How to make tour guides mindful?

Understand the variety

Providing multisensory perception

Make connections to visitors and get them involved

Know and respect visitors

Task 3: Mindful guide will better handle the travelling problems

Homework

Structure Questions

In the second session, the researcher introduced the concept of mindfulness in the context of tourism. Initially, the mindfulness models set out in Figure 2.2 and how they can be applied specifically to tourism settings were explained to the guides (Moscardo, 1999, 2022a). The guides were encouraged to appreciate and recognize the diverse emotions, knowledge, and cultural backgrounds that visitors bring during a tour. They were advised to pay attention to the variety of times, locations, and seasons of travelling. Building on the multisensory awareness learnt in the first session, the trainer taught the guides to use all their senses to enhance their guiding experience and enhance the satisfaction of visitors (de Guzman et al., 2019; Eck et al., 2023). During the discussions, the group designed some mindful activities such as observing the leaves in the wind at one of the destinations they were familiar with or listening to the sea waves in the evening. This session encouraged tour guides to form more meaningful connections with visitors by engaging them in the narrative of the tour, making it interactive and personal. It was suggested that the guides provide tourists with more opportunities to ask questions and make choices, and to engage themselves in conversations with guests by choosing topics within the guests' everyday experience or on topics of personal relevance. They were also taught to use analogies and metaphors from their everyday lives as interpretation skills to make concepts concrete, easy to be understood (Black et al., 2018; Gilson & Kool, 2021). Moreover, as a mindful and qualified tour guide, they were asked to consider the importance of knowing and respecting visitors, understanding their experiences, motives, and existing knowledge, and socio-demographics and psychological characteristics.

Ongoing practice and aligned homework were assigned that required tour guides to apply mindfulness principles in real or simulated tour scenarios. These tour guides were encouraged to journal their experiences and insights gained from being mindful during each practice. Mindfulness training homework with novelty thinking was designed to make them play the different role of tourism managers whose responsibilities include promotion and development of the itinerary products available in local region (Moscardo, 1999). They had to consider opportunities in this region for the “seniors” market, to create a list of tourist activities or experiences that they believed could be appropriate for “senior” travellers. They were also asked to list three advantages and three restrictions that “senior” travellers have over other travellers for enjoying their holidays. Most of the trained guides submitted very detailed activities which were different from the regular itineraries in their region which even surprised themselves and gave them confidence to share with travel agencies and update the current products (See Appendix C for an example).

Finally, the tour guide advisory group created and shared a set of questions for the online WeChat community that tour guides could use to evaluate their application of mindfulness after each tour. These included reflections of the past training and learning on what went well, what challenges arose, and how mindfulness helped in managing those challenges. By following these steps, tour guides could develop a solid foundation in mindfulness.

Session III. Interpretation and story telling

Task1. Why are story-telling skills important for tour guides?

Task2. What are stories?

Task3. What are the features of good stories?

Task4. Whose stories? (*Group discussion 1*)

Task5. What are the themes of stories?

Task6. How to tell a good story? (*Group discussion 2*)

Homework: draw a story of a tour guide life

Structure Questions

The session began with a discussion to help the guides understand the importance and general features of storytelling by tour guides (Campbell, 2008; Dillette et al., 2018; Woodside, 2015). Stories are the essence of tourism, they can create connections between locals and tourists and tourists and visited places (Moscardo, 2020). Visitors prefer to be told stories that make clear the relationships between pieces of information, and that can help them to make connections between their knowledge within social and historical backgrounds. Tourism serves as a convenient means to escape one's routine life, offering an exploration of the diverse stories of others. In discussion some tour guides added that a story must be entertaining and elicit an emotional response from the audience. The guides then discussed the main differences in themes, structures, and roles of stories between Chinese and Western which are summarised in the following table, Table 3.2.

The trainer encouraged tour guides to explore stories from locals. These narratives come from people who live in the destination and can provide an authentic perspective on local life, customs, and changes over time to visitors. For example, in a small Italian village, a local might share how tourism has revived ancient winemaking techniques (Moscardo, 2021). Similarly, the Chinese tour guides identified several family-run entrepreneurial stories, which are the stories of local business development. For example, a family-run Bakery shop in Huangshan that has been operating for generations was highly recommended by the local tour guides and it was recognised that the family story was part of the appeal of this business. Moreover, tourism staff narratives were also recommended. Employees often have personal stories about what the place means to them, which can add a personal touch to the visitors. Many of the guides acknowledged that stories of their personal suffering during the pandemic were highly interesting and could help build connections to the tourists who shared some similar experiences (Howison et al., 2017; Tussydiah & Fesenmaier, 2007).

Table 3.2

Main Differences Between Western and Chinese Stories

Story Features	Chinese stories	Western stories
Themes	Common themes include moral	Themes of personal freedom,

	<p>integrity, duty to family and society, the power of virtue, the mystical or supernatural. Historical and mythological references are prevalent. Socialism collectivism and great political comrades are highly praised.</p>	<p>heroism, the triumph over adversity, love, and justice are common. Mythology and history are used but often in a way that highlights individual achievement or moral dilemmas.</p>
Structure and plot development	<p>Traditional Chinese stories may follow a less linear, random structure compared to Western narratives. They often embrace cyclical or episodic storytelling, with a focus on the journey and experience rather than just the climax or resolution.</p>	<p>Western storytelling typically adheres to a linear structure with a clear beginning, middle, and end, often centred around a conflict and its resolution. The classic "three-act structure" is a hallmark of many Western narratives.</p>
Characters	<p>Characters in Chinese stories are often archetypes or figures embodying certain virtues or flaws. The emphasis is more on their role in conveying a moral or social lesson rather than deep personal development or introspection.</p>	<p>Western stories usually place a strong emphasis on character development and transformation. The inner journey and personal growth of the character are often as important as the external plot.</p>
Story Role	<p>Stories are often seen as tools for moral education and social cohesion. They play a significant role in preserving cultural heritage and values.</p>	<p>While also used for moral education, Western stories frequently serve as a means of personal expression and exploration of individual and societal issues.</p>

Note. Sourced from (Campbell, 2008; Huang, 2018; Huang & Wang, 2019; Liu, 2017; Wang & Leichtman, 2000)

The Story dice game was adopted as a playful training tool that can help tour guides enhance various aspects of their storytelling skills, and particularly their mindfulness, in several ways. The game involves sharing three randomly appearing key words on the screen and asking tour guides to create impromptu interesting stories from the words (<https://davebirss.com/storydice/>) (Arbain & Nur, 2018; Jamil, 2019). Story dice training as a key interpretation skill could assist in making their storytelling during tours to be more creative, adaptable, and memorable for visitors. This skill is also crucial when dealing with visitors where questions or situations can arise unexpectedly, and the guide must adapt the narrative accordingly. One of the storytelling homework activity outcomes is included in Appendix D demonstrating how a guide mindfully and ironically connected the Covid situation in the plot to their guiding practice.

IV. Tourism sustainability

Task 1. What is sustainable tourism and tourism sustainability in China ?

Group discussion 1, 2,3

Task 2. What is the sustainable behaviour of tourists?

Task 3. How do tourists behave in sustainable way?

Task 4. Think in a mindful way to promote tourism sustainability in daily life.

Group discussion 4

Homework

Structure Questions

This final session began by introducing the concept of sustainable tourism and the United Nations' 17 Sustainable Development Goals, underscoring its importance as a growing global imperative and specific significance within the Chinese tourism development trajectory and perspectives. Guides were informed about the main aspects of tourism sustainability from environmental conservation to cultural preservation and economic viability. The aim was to equip them with a comprehensive view of how tourism can be managed to meet current needs while safeguarding resources for local destination and future tourism (Chen et al., 2020; Chen

et al., 2014). Some aligned concepts and thoughts such as high-quality tourism development were illustrated and compared to sustainable tourism (Dioko et al., 2013; Liu et al., 2018).

In the group discussion, some background reasons of why tourists behaved in an unethical way were firstly discussed and summarized. Low education levels and high expectations of service and products, as well as poor regulations of tourism administration were listed as the most common reasons by the guides. Some effective suggestions from the literature including new types of behavioural interventions and social media implementation strategies (Zeng et al., 2023) which aim at breaking bad vacation habits through disrupting automaticity were then outlined (Esfandiar et al., 2019; Georgescu & Herman, 2020; Gulati, 2021; MacInnes et al., 2022). The session then explored sustainable traveling tips from professional sustainable websites (<https://www.gstcouncil.org/>) such as reading and returning travel information brochures for reuse and doing some research before travelling to understand the local culture and traditions of your destination, so that one can behave appropriately.

The guides then gathered online to consolidate their learning from the examples and brainstormed and shared further actionable steps they could take to promote tourism sustainability in their daily interactions with tourists in Chinese contexts. This task also covered how to handle situations when tourists engage in non-sustainable practices, providing guides with conflict resolution and educational tactics (Chang et al., 2020; Demirović Bajrami et al., 2020; Gulati, 2021).

Finally, the trainer and the advisory group encouraged the tour guides to integrate mindfulness with sustainable tourism. Tour guides were taught to apply mindfulness principles—such as suggesting a new perspective in understanding tourist consumption, awareness of their unique roles, and enhancing their attention to the natural environment (Dussler & Deringer, 2020; Noor et al., 2014; Tan et al., 2020).

3.2.3 Survey Data Collection Procedures

The Qualtrics online survey platform was used to administer three surveys (Appendix E). The registration survey was advertised on the promotional poster and primarily acted as an

expression of interest aimed at capturing the demographic details of the potential participants. Pre-training and post-training surveys were then conducted, and each included a mindfulness scale and several open-ended questions, to assess any shifts in participants' mindset and skills before and after the training. Two different mindfulness scales were used to avoid potential testing bias. The pre-training survey featured the 15-item Mindfulness Attention and Awareness Scale (MAAS) by Brown and Ryan (2003). Often used in research for its demonstrated precision in measuring present-moment awareness, the MAAS utilizes a 6-point Likert scale, allowing participants to indicate the frequency of their mindful states ranging from "almost always" to "almost never." This scale probes the participants' tendencies to notice or overlook aspects of their current experience, including physical sensations and emotional cues. Such tendencies are critical to understanding the baseline mindfulness levels of individuals, particularly how they might be affected by distractions or a lack of attention to their internal and external environments (Pirson et al., 2012). The MAAS's robust reliability and validity make it a staple in both psychological research and practical business applications, providing valuable insights into an individual's propensity for mindfulness. The post-training survey adopted the 21-item mindfulness scale conceptualized by Ellen Langer, which expands upon the foundation laid by the MAAS. This Langer Mindfulness Scale (LMS) employs a 7-point Likert scale, with responses spanning from "disagree strongly" to "agree strongly." The LMS focusses on the four interrelated components of mindfulness: novelty seeking, engagement, novelty producing, and flexibility. These components reflect a dynamic understanding of mindfulness that encompasses a proactive search for new information, a deep involvement in activities, the creation of new categories in thought, and an adaptive approach to change (Pirson & Langer, 2015). The LMS has also shown applicability across diverse Chinese contexts, including education and academia, as evidenced by studies involving high school teachers and university students (Hu et al., 2014; Tong, 2019; Yuan & Tong, 2019). Its recent application in the tourism sector by researchers like Eck et al. (2023) underscores its relevance and emerging significance in this field. The integration of these two scales, coupled with several open-ended questions, aims to assess any shifts in participants' mindset and skills resulting from the training.

Beyond the mindfulness scales to gauge the psychological changes in respondents,

supplementary questions concerning the research questions were also incorporated. The design of the mindfulness training program evaluation survey with the specified topics and questions aimed to systematically assess both the psychological transformation of the tour guides and the practical implications of their training. The pre and post training questions were designed to evaluate the various aspects of tour guides, from exploring motivations and expectations of participating in the training, examining their understanding sustainability, and applying the new trained skills in affecting tourist behaviour.

The pre-training survey questions included sections on the following key topics:

- Motivations and training expectations were explored by asking “What elements may inspire you to register for this training program?”, and “What specific goals would you expect from this training?”
- Perceptions and understanding of tourism sustainability and problematic tourist behaviour were explored by asking “How would you define sustainable tourism in your own words?”, “What are the main unsustainable phenomena or behaviour you have encountered in guiding a tour group, please list at least three of them?”, and “Some bad behaviours of tourists may contribute to unsustainable travel, in your opinion, what are the main causes of these bad behaviours?”
- Identification of the tour guides’ skills to enhance experiences of tourists and contribution to sustainability was achieved by asking “As a tour guide, what are the main effective approaches and skills you have used to create memorable and satisfying experiences for tourists on your trips?” and “As a tour guide, what are the main approaches and skills you have used to promote tourists’ understanding and contribution to tourism sustainability?”

The post-training survey questions included the following sections:

- An evaluation of what the participants thought mindfulness using the question: In your own words, how would you explain ‘mindfulness’ to a peer or friend who has not participated in the training?

-
- An open-ended question exploring how they intended to apply their learnt skills in practice measured with the question: Please identify 3 new skills or ideas you have gained from this training that you would like to apply in your guiding work.
 - A similar exploration of intention to include new guiding practices and information on sustainable behaviour.

Understanding the motivational factors that drive tour guides to undertake mindfulness training provides insights into their initial expectations and their perceived value of mindfulness in their profession. The post-training open-ended questions enabled an evaluation of the shift in their perspective and the applicability of their creativity and flexibility in future guiding (de Guzman et al., 2019; Dussler & Deringer, 2020). By requesting specific examples and techniques the guides plan to adopt, the study sought to explore the interpretation skills in guiding, and storytelling outcomes from the tour guiding training program (Howison et al., 2017). The inclusion of storytelling is particularly significant, as narrative competence is known to be an effective tool for engaging audiences and fostering meaningful connections with the content, which in turn can influence behaviour (Moscardo, 2021).

Finally, the questions related to sustainability and tourist behaviour were included to assess the guides' pre-existing knowledge and their strategies for managing tourism sustainably. By asking tour guides to reflect on these aspects post-training, the survey evaluated the training program's effectiveness in enhancing their practical skills and approaches to promote sustainable tourism, which is increasingly critical in the face of local unsustainable behaviour of tourists (Juvan & Dolnicar, 2021; MacInnes et al., 2022). In summary, the two surveys were crafted to gauge both the cognitive shift in mindfulness and the practical application of new skills, with an overarching goal to enhance the efficacy of tour guides in fostering sustainable tourism practices.

3.2.4 Translation and thematic analysis

All the answers to the open-ended questions were exported from Qualtrics with verbatim

translation from Chinese to English by the researcher. The author familiarised himself with the data by repeatedly reading the transcripts and noting down initial ideas. Then the author set up a Chinese synonym's dataset containing the various Chinese phrases with the similar meaning. Then the synonym English phrases, like "mindsets", "thinking" as the most frequent transcribed words were adopted and translated into English. This translation by the researcher was checked by another bilingual translator. Final English versions of the responses were reached by agreement between both translators and confirmed with language translation software. The next step involved another bilingual colleague fluent in both Chinese and English to take the English version and back translate the key responses of tour guides from English to Chinese. These initial two steps were repeated as necessary to reduce any discrepancies that existed between the original version and the back-translation (Chen & Boore, 2010). The author then discussed the categories of English expressions with his supervisors to make sure that the translations were clear and accurate.

Thematic analysis was chosen as the primary method to analyse the responses of tour guides from the pre- and post-training surveys within this study. This qualitative analysis method is widely appreciated for its flexibility and applicability across various data sizes and types, making it a robust tool for researchers in a multitude of disciplines, including tourism (Braun & Clarke, 2006; Rickly, 2022). It allows for an in-depth exploration of data, enabling the researcher to identify patterns of meaning and construct rich, detailed, and complex accounts of data (Braun & Clarke, 2006; Braun, 2019). In this study, thematic analysis was employed to discern the nuanced shifts in tour guides' understanding and application of mindfulness following their training. The focus was on the qualitative textual content derived from open-ended survey questions and subsequent discussion transcripts. This methodological choice was in line with the participatory nature of the research, which sought to reflect the authentic voices and perspectives of the tour guides—essential for ensuring the integrity of the research and alignment with participatory research principles. The effectiveness of the mindfulness training program was also evaluated using thematic analysis, particularly through the responses to post-training survey questions that probed tour guides' conceptions of mindfulness. By engaging with the data through this analytical approach, the study aimed to

substantiate the training's impact on enhancing mindfulness among participants.

To ensure that the coded themes accurately represented the participants' viewpoints, the following process was employed. The researcher dedicated substantial time to immersing himself in the data, reading and re-reading survey responses to fully grasp the essence of the content. The initial stage of open coding allowed for the identification of basic themes and patterns in the raw data. This was followed by axial coding, which linked the open codes and started to shape the interrelationships between themes. The final stage, selective coding, summarized the core themes that emerged as central to the participants' experiences (Lincoln et al., 2011; Patton, 2015). The iterative nature of the analysis process involved repeated discussions among the research team and included feedback from some of the tour guides to assess the validity of the coding and the emergent themes. For example, if a participant answered the question on why they volunteered to participate with the statement "Wish to inspire more creative ideas in designing the teaching projects" it was given the code "inspire more creative ideas". If another participant gave the answer "I look forward to gaining an explorative and innovative thinking mode from this learning activity so that I can use it in the tourism industry I love in the future" it was coded "seeking innovation". These were then seen as examples of a theme labelled "developing innovative approaches". See Table 3.3 for more examples.

Table 3.3

Coding process of answers to what specifically did you expect from this training?

Data	Codes	Themes
Wish to inspire more creative ideas in designing the teaching projects	inspire more creative ideas	develop innovative thinking
I hope this training can bring you a sense of innovation, and I believe this training will be a perfect success		
I look forward to gaining an explorative and innovative thinking mode from this learning activity so that I can use it in the tourism	Innovation from training	

industry I love in the future		
Expand my training, broaden my horizons, expand my thinking		
Opened my views, no longer inspect the industry with conventional opinions.	Change conventional opinions	seeking transformation and guidance
Hope to change myself		
Don't care the results, I will treat this training as awakening myself, to polish my knowledge.	Learning from training	
Wish to learn some different knowledge.		

Some of the participating tour guides also provided feedback to further validate and verify the themes, ensuring the findings were grounded in the participants' true feedback and insights. This reflective and iterative process, engaging directly with the participants, is not only indicative of best practice in qualitative research but also reinforces the participatory involvement of the study. The thematic analysis thus became a collaborative exercise, providing a comprehensive understanding of how mindfulness training influenced tour guides' professional practices and conceptualizations of mindfulness within the context of sustainable tourism.

3.3 Results and Discussion

The data analysis was conducted in three main steps. The first involved the quantitative analysis of the structured Mindfulness scales and a qualitative exploration of perceptions of mindfulness, the second was a qualitative thematic analysis of the answers to the pre and post training open ended questions and the third was a qualitative thematic investigation of the participants overall thoughts on the training program, mindfulness, and sustainability in tourism.

3.3.1 Evaluation of mindfulness

Before exploring how mindfulness might contribute to changing tour guide perspectives

on sustainability and their practices to encourage sustainability amongst their tourists, it is important to determine if the training program overall encouraged greater mindfulness amongst the guides. The pre and post training mindfulness measures were altered so that they would have the same number of items and the same number of response options. An examination of 7-point post training scales showed that no one used the first 2 response options, so the whole scale was shifted down by one scale from 7 to 6, 6 to 5 and so on to get a six-point scale. Then seven items were removed to improve the overall Cronbach alpha resulting in a 14-item version (these items are highlighted in the scale provided in Appendix E). Then when checking the reliability analysis for the pre training mindfulness scale, it was found that removing item 6 (see Appendix E) could improve the overall scale Cronbach alpha from .838 to .851, so removing that item resulted in two scales with a comparable 14 items with a six-point scale. As both scales are skewed and the samples sizes are small, a non-parametric test was employed. The use of Wilcoxon Signed Rank Test uncovered a significant difference between the pre and post-tests (test statistic is 13.5, $p < 0.001$). The post-test demonstrated a higher result, (mean 55.1, Std Dev of 9.16) than the pre-test (mean 34.27, std dev of 8.5). This distinction identifies the training's effectiveness in enhancing the mindfulness levels of these respondents.

Table 3.4

Mindfulness Themes Identified by Tour Guide Participants

Themes	Example
Breaking the habitual thinking and change	TG* 11: Change the way of thinking, break the inherent thinking styles, and combine innovative ideas and ideas with the original habits.
New perspective and divergent thinking	TG 19: Jump out of habitual thinking/fixed mindsets, focus on observation or do one thing, and you will find that the world will be different and excellent!
Creativity and independent thinking	TG 27: Break the routines, change the fixed thinking(mindsets), look at the problem from a different perspective, discover different aspects of the problem, and discover the surprises of things

Attention and perception	TG 22: Mindful thoughts can think on our own and reach a deeper level. Remembering the meaning of the concept itself, at the same time, diffuse my mind to apply what I have learned, and conduct real independent thinking instead of mindless thoughts.
Reflection of guiding work	TG 9: The training of "mindfulness" is very important for us to stabilize ourselves in the later stage and re-understand the work of guiding a group, so it is very practical for those who are interested in continuing to work as a tour guide.

Note. *TG stands for Tour Guide.

In addition to assessing the shifts in mindfulness through two scales, participants' insights into their enhanced grasp of mindfulness were summarized into five themes, as detailed in Table 3.4. These themes illuminate the precursors, strategies, and effects of applying mindfulness within the tourism framework. Generally, the trainees' perceptions of mindfulness were consistent with definition of mindfulness in research. As such, they perceived mindfulness as a form of innovative cognition that encourages varied perspectives and a deep understanding of the diversity of the contexts in which they worked. Many guides identified the antecedents to attaining mindfulness, one must break from conventional thought patterns, emphasizing the need for openness and creativity. In fact, this aspect of creativity is identified in the literature as an important approach to achieve mindfulness, which should be rooted in a creative environment (Batalo, 2012; Kaufman, 2016). However, in China, as in many other countries, education may not encourage creative thinking (Yuan, & Tong, 2019) and as a result Chinese tour guides may find it difficult to adjust to a more mindful approach. It is understandable then that these tour guides expressed their gratitude to this program and viewed it as a catalyst to free their mind to "find an innovative path (TG 17)". In addition, a small group of trainees also believed the use of mindfulness theory could provide new solutions to current tourism problems and address potential prospects that may result from their refreshed perspectives. Other trainees also contrasted states of mindfulness and mindlessness, recalling previous mindless actions as being "without using our own brains (TG 20)".

Interestingly, other guides chose to argue the impacts and outcomes of mindfulness on influencing their understanding and decisions about life and work rather than providing a definition. They believed that a mindful state in guiding could offer tourists multi-sensory immersive experiences, fostering a deep connection with surroundings. One guide stated, “tourism staff are ordinary people, but they are also great people. If they can persist in doing ordinary things and do them perfectly, they will be great and become extraordinary people (TG 16)”. These words suggested that a mindful state helped them better understand the significance of their current guiding job, recognize their strengths, and appreciate their value to tourists. This mindset also comforted them with respect to the pandemic issue, making them more optimistic about the situation than they were in the pre-training survey. This was consistent with research demonstrating that mindfulness can reduce emotional exhaustion to other tourism employees (Li et al., 2017).

A few guides discussed the approach to achieve mindfulness that is being attentive to the present situation, and actively modifying one’s actions to reflect the current context. Their responses reflected the difficulty of discarding the previous perception about their work but they remained committed to embracing diverse perspectives in current life to nurture their cognitive mindfulness. The guides in this study mentioned the training exercises like savoring the taste of chocolate and observing everyday events with multi-sensory awareness. These findings aligned with cultivating mindfulness to make subtle changes in daily life and focusing on the observed subject, rather than relying on past experiences (Langer et al., 2012; Maymin & Langer, 2021).

Table 3.5

Motivations and training expectations.

Theme	Example
Developing creative thinking	TG 12: Hope to improve my innovative thinking. TG 24: We need to break traditional thinking and look at tourism from a higher perspective. I look forward to specific cases and the guidance of innovative thinking. Everyone

	wants to innovate, but they don't know how to innovate.
Learning to introspect	TG 18: Due to my various deficiencies and defects, I hope to improve myself through this training and continue to improve.
Worrying about the tourism in pandemic	TG 7: I am very confused about the future of tour guides and travel agencies, feeling a sense of crisis, and I don't know the direction of the tourism industry in the post-epidemic era.
Enhancing professional skills and knowledge	TG 22: The three-year epidemic has worried me that I am getting farther and farther away from the tourism industry, and I hope to continue to engage in it.

Table 3.5 summarizes the responses of tour guides with regard to their motivation for participating in the training, and it showed most of them aimed to change and to see the opportunity to analyze themselves. From their words, they were greatly impacted by the pandemic period and the loss of work and worried about the tourism industry getting more competitive. Therefore, they expected to learn more skills and knowledge to help them gain a competitive advantage in the future industry. Many guides expressed their desire for the training to help them change their conventional ways of thinking, especially to reconsider their tour guiding work from different perspectives. They all revealed a positive acceptance and curiosity towards the innovation and sustainability concepts in the upcoming workshops and wished to apply them in the future work. At the pre-training stage, it is hard for them to connect creativity and mindfulness together, despite the connection identified in previous studies (Batalo, 2012). However, many of them optimistically considered the training as an effective approach to reflect on what they had done before and to think about how to improve themselves, especially in facing the current tough situation in the tourism industry. Most of the participants specifically expressed their anxiousness and depression about the pandemic period, as most of them have been let go or were unpaid by the travel agencies. To keep making a living, they had to swiftly seek other less interesting jobs and gradually lost their confidence in tourism industry. These sentiments hint at the challenges experienced by some tour guides in terms of trauma and hopelessness during the social transformative period, challenges that resonate with their counterparts facing inequality and unfairness in other

countries (Nazli, 2021). This mindfulness training thus was unwittingly regarded by them as an potential remedy to heal their psychological distress, although they may not recognize that mindfulness can actually play a role in comforting people to reduce their stress (Langer & Moldoveanu, 2000). What is more, many anticipated the training would generate some new insights to rescue them from the pandemic period and saw the training as a shortcut to meet the new requirements of the tourism industry after the post-epidemic era. However, most of their responses showed they were still not considering their career options in a mindful way, entrenching themselves in the current role without readiness for transitioning to other occupations. Therefore, they expected the training to enhance their professional skills and knowledge, aligning with the objectives in tour guide training across countries to elevate their expertise and professional abilities (Carmody, 2013; Çokişler, 2022; Huang & Weiler, 2010; Weiler, 2016).

Table 3.6

Perceptions of tourism sustainability and problematic tourist behavior

Theme	Example
Irrelevant perceptions of tourism sustainability	TG 26: Use the existing tourism resources to create specialization, prevent homogeneity, attach importance to talents, create branding, and create profits!
Relevant and nuanced perceptions of tourism sustainability	TG 24: It not only satisfies the tourism needs of contemporary people, but also does not damage the development and enhancement of the ability of future generations to meet their travelling needs. Including the sustainable development of tourism economy, the sustainable development of tourism ecological environment and the sustainable development of tourism society.
External factors for problematic tourist behaviours	TG17: destination received the tourists beyond the maximum carrying capacity in pursuit of economic benefits
Internal factors for	TG 21: Unreasonable behavior stems from the low quality

problematic tourist behaviours	of tourists with outdated and backward ideas, and depends on their education level and income level
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Table 3.6 revealed another four themes derived from the tour guides' insights on tourism sustainability in the pre-training questionnaire. While some of responses are pertinent, many don't align with the principles of tourism sustainability. Nevertheless, when addressing the unsustainable travelling phenomena in China, most of the tour guides could provide insightful explanations from their own perspective, categorizing the causes as either external or internal. In academic research on Chinese tourism, the concept of tourism sustainability has manifested in several terms, such as "sustainable tourism", "ecotourism", and "sustainable tourism destination" without extensive clarification. This ambiguity makes it challenging for most tour guides to articulate a clear explanation, especially as they may not have been provided with any training in this topic (Huang & Weiler, 2010). Therefore, many of the guides offered diverse interpretations of tourism sustainability, often straying into unrelated areas, such as administrative tourist management methods or the responsibilities of tour guides. Some responses even echoed with a habitual Chinese discourse filled with vague phrases, such as "keep pace with the time", "Learn to adapt to the society". These responses suggested that they were anchored in established information and knowledge (Langer, 1989; Langer & Moldoveanu, 2000). Only a few guides could identify one of the key elements of sustainability concerned with economy, culture, and nature in tourism, as illustrated in the table 3.6. Among this group, a few tour guides did link their perspectives on sustainability to their understanding of traditional Chinese philosophy, human and natural harmony, which may be embedded in their mind from their early education. This philosophy aligns with the definition by some Chinese scholars on ecotourism, highlighting the integration of sustainable development with traditional Chinese values, the harmonious coexistence between human beings and nature, and protection of the environment (Liu et al., 2013; Liu et al., 2018; Zhong & Liu, 2017).

Regarding the phenomena and the causes of problematic behaviour of tourists, many guides mentioned the internal factors of tourists themselves. The tour guides in this research listed those most frequently encountered in their work, such as littering, unhygienic toilet practices, smoking in public areas, cutting in line for public transportation, consistent with the

previously discussed examples of uncivilized behaviour, unethical behaviour, and deviant behaviour in literature (Liu et al., 2020; Tolkach et al., 2017; T. Wang et al., 2023). The internal factors linked to the tourist themselves included poor personal etiquette and inadequate education, limited awareness of inappropriate behaviour, and high expectations of services and products (Liu et al., 2020). The notion of “personal cognition” as a cause emerged from a subset of guides based on their previous guiding experiences.

Table 3.7

Tour guide skills to enhance experiences of tourists.

Theme	Example
Standardized and personalized service	TG 24: ...treat people with sincerity, serve with heart... TG 18: Sincere service and put me in the shoes of tourists.
Excellent communication and interpretation	TG 19: Provide interpretation services in line with the age of tourists, personalized services, and additional services beyond the scope of original services
Setting models of tour guides themselves	TG 8: The tour guide takes the lead as a practitioner and advocate of civilized tourism

The key themes identified in the answers to the question on skills to enhance tourist experiences are outlined in Table 3.7 and include standard and personalized service, effective communication, and role modelling by tour guides. These were identified as the principal strategies to enrich tourist experiences and amplify contributions to sustainability. Chinese tour guides are required to master the general guiding practices and skills in their previous pre-vocational and in-service trainings. A central tenet of this training is to strictly adhere to the procedures of service provision to tourists (Luo et al., 2021). Consequently, when questioned about the approaches of contributing to enhancing tourist’ experiences, many guides instinctively reverted to a rigorous perspective on the importance of quality service to guests. The methods of serving guests wholeheartedly and catering to the specific service needs of all guests has been instilled in tour guides through training brochures and textbooks

for years. Many tour guides treat themselves primarily as a hospitality staff, neglecting their essential roles as interpreter to influence tourists through interpretation. However, a select few guides recognized the role of effective communication and interpretation in elevating tourists' experiences (Huang, 2010). While these skills are still considered as part of the high quality of service, as illustrated in the table, they were not viewed as distinct tools for educating the tourists about the visited places (Hu & Wall, 2012). Furthermore, the link between these skills and this emerging concept of tourism sustainability remained vague, perhaps because it has not been a focal point in their prior training. In practice, when facing new problems in the tourism industry, such as addressing impolite behaviours of tourists, tour guides often rely on official regulations for guidance (Luo et al., 2021). It was difficult for this group to generate their own methods to solve these new social problems. They naturally raised the habits of thinking and answering with traditional rigid responses, such as "Civilized persuasion, practice by oneself", or "Actively protect the ecological environment" without deeper explanation. Despite this, a few tour guides could connect their own responsibility in encouraging guests to consider sustainability and civilized behaviour, emphasizing their abilities to influence tourists by exemplifying appropriate behaviour by themselves.

The comments of setting a positive image for tourists revealed that some tour guides took pride in their "model role", a typical responsibility of guides in China different from the conventional roles. They may be potentially influenced by the honoured title "folk ambassadors" which was rewarded to tour guides in the 1960s. This title was placed on them to convey politically acceptable standpoints, and to impart accurate national policies and regulations as they represented the image of China (Dioko et al., 2013).

Table 3.8

New skills from the training program

Theme	Example
Flexible interpretation	TG 12: Different interpretation means you does not rigidly to tell the historical stories and celebrities of a destination

	but can cite (compare) the most current popular issues to meet the group interpretation.
Reconsider the needs of customers	TG23: From the point of view of tourists, more interaction needed in the guiding to inspire the enthusiasm of tourists, then help them discover the fun of travelling.
Story telling from different perspectives	TG 14: Tell stories better, tell them brilliantly, and tell in different views.
Introduction of sustainability	TG 9: Convey the concept of sustainable development to tourists in practical guiding

From the table 3.8, four themes could be identified from the post training question on new skills learnt in the training that the tour guides would use in the future work. Most guides reported becoming more aware of mindfulness, and the need to integrate this novel and open thinking with the skills acquired during the training. They also reported that they had built up their skills based on the traditional techniques of interpretation and storytelling and were planning to incorporate the methods of fresh perspectives, novelty seeking and flexibly adapting conventional stories covered in the training.

Many recognized the significance of interpretative factors and sought to actively apply them into their new skills. These responses echoed their understanding of the key antecedents to the application of mindfulness in various tourism settings, outdoors, museums, (Frauman, 2010; Moscardo, 1999; Ying et al., 2020), focusing on variety, notably multisensory, and connections to visitors. Regarding the variety aspect in interpretation, they considered “using multiple identities to interpret and introduce the characteristics of tourism destinations.” Additionally, many had appreciated the simulated guiding in various sites during training, believing such methods could effectively engage tourists. They were keen on using various senses to enhance their guidance, believing that mindfulness could heighten appreciation of tourists for differences and diversities even in the common attractions, helping visitors counteract the “forced homogenization” (Langer & Moldoveanu, 2000).

Story telling was another key skill they were eager to employ in future guiding. Many guides elaborated on the principles of storytelling, emphasizing multi-sensory and interactive

engagement with visitors, consistent with the principles of mindful interpretation. Others wanted to expand the story telling objects beyond the conventional topics presented to the tourists, the tourism destination more broadly, to some other unexpected stakeholders including the tour guides themselves. This approach demonstrated their mindfulness, seeing things from different perspectives and forging a deep connection with their own experiences. These tour guides appeared to be intrigued by the new information from the storytelling frameworks introduced during the training (Moscardo, 2020). Some even posited storytelling could be used to influence visitors both during and after their trips, a perspective commonly explored in academy but seldom considered by the average Chinese tour guides. This highlights the positive impact of mindfulness training on mindful tour guides resulting them being more receptive to learning and understanding on the new knowledge.

Furthermore, some guides expressed a keen interest in applying the concept of tourism sustainability. While it was not strictly a guiding skill, many were enthusiastic about integrating it into practical guiding work. For instance, one guide commented, “I know the importance of sustainability in tourism and to the future generations and will propaganda the concept of sustainable development in travelling”. This openness to new concepts was also seen as a manifestation of mindfulness (Moscardo, 2022b). In terms of providing service to guests as another skill, guests shifted from solely adhering to regulations to meet all the needs of customers. They embraced new approaches to satisfy guests, such as offering special experiences to guests, fostering greater interaction with guests, swapping the positions of guides and tourists, and designing innovative activities to enhance their experiences.

Table 3.9

Promoting sustainable tourism and storytelling

Theme	Example
New perspectives on story telling	TG 11: Many tourists don't understand why it is called Hefei (literally meaning two fat people hugging). Is it because two fat people hug each other? That's not true, and it's related to the two water systems.

Novel interpretation and storytelling in sustainability	TG 8: Give tourists more praises for good behaviours and label them as models
Enhance protection awareness	TG 21: Garbage bags are always provided during the group tour so that tourists can easily put the rubbish in it
	TG 12: Make tourists aware of the worthiness of cultural relics through interpretation and call on tourists to establish awareness of the protection of historical relics.

Summarized from responses of the post-training questionnaire, these trained tour guides illustrated great examples of using storytelling from different perspectives to engage tourists. Beyond storytelling, some other methods from previous training were applied as persuasive tools, to guide tourists to behave in a sustainable way. While the short stories documented in the questionnaire were not entirely well-structured, failing to completely capture certain puzzling, unexpected, problematic, or exemplary events (Woodside & Sood, 2016), many conveyed mindfulness by refreshing the conventional stories with unexpected plot twists or with multi-faceted explanation. Especially, when they described an archetype of celebrities and their connection with a tourism attraction, they highlighted the less-known facts to increase the interests of guests, a strategy of influencing visitors to facilitate mindfulness (Noor et al., 2014). Many others emphasized other principles of storytelling, such as, question-and-answer format, using multisensory tools, aligning with the mindfulness model of tourism to enhance tourists' perception of travel experiences (Moscardo, 2009). Some other guides contrasted their previous interpretation in a mindless style, just telling the celebrity stories and the background information of destination, with the current flexible style that everything could be interpreted from different perspectives. Overall, most of them revealed their novelty producing and creativity from storytelling examples. It is worth noting that most of the stories suggested were focused on themes of Chinese traditional or revaluation culture with few concerned with nature, as culture was highly recommended by the authorities as compulsory material in interpretation by tour guides. This social environment might inhibit their creativity in telling more interesting stories to tourists.

On promoting sustainable tourist behaviours, most tour guides, embodying mindfulness, emphasized raising the sustainable awareness of tourist through their interpretation. Aligning with the principle by Tilden (Tilden, 1967) that interpretation leads to understanding and appreciation, which ultimately fosters protection. Guides believed that tourists could genuinely understand the value of tourism sustainability and unconsciously protect it through clear and repetitive interpretation. This was closely aligned with the method of directly providing conservation rules in supporting responsible tourists behaviours via different cultural backgrounds (Kang & Moscardo, 2006). Therefore, they emphasized their articulation about this concept through “consciously add the sustainability concepts in guiding words” and “continue to publicize environmental protection”. Additionally, reinforcing the importance interpretation techniques to enhance tourists’ experiences and protect the natural, cultural of destination, they echoed other research that such interpretative methods could promote destination sustainability (McGrath, 2007; Powell & Ham, 2008; Weiler & Kim, 2011). In terms of the storytelling technique, Moscardo (2017) and other authors (Frost et al., 2020; Howison et al., 2017) have explored its important role in heightening tourist experiences and promoting tourism sustainability. Tour guides expressed that telling well-structured stories can “...enter the hearts of tourists...(TG13)” and result in more positive attitudes toward the destination. Guides also displayed innovative communication approaches, praising tourists for positive and responsible behaviors, rather than just reprimanding them, such as “Give tourists more praises for good behaviours and label them as models” and “give tourists positive feedback, and bring tourists to experience the charm of local customs”. The current study provides empirical verification for the relationship between mindfulness and interpretation, having demonstrated that the mindful tour guides using effective interpretation skills like storytelling, can directly and positively influence tourists’ sustainable behaviors.

Additionally, most tour guides expressed their active attitudes on tourism sustainability through the protection of nature and advocacy of culture. Interestingly, they did not much reference promoting the local economy. This might be because Chinese tour guide have long been perceived by public as shopping motivators and brokers seeking commissions (Li et al., 2020; Zhu & Xu, 2021). To avoid this occupational stigma, they preferred not to emphasize too

much of the economic aspect of tourism sustainability in their guiding. Some detailed advisable action examples from the training are quoted by the guides, such as, “take a shower in hotel with a time control”, and “Prepare garbage bags and distribute them to tourists”. This adaptability and implementation suggested that there beneficial effects linked to sustainability emerging from the effects of mindfulness-based training. Moreover, many of them could further highlights potential external causes of unethical behaviours of tourists, such as the poor supervision and regulation of tourism administration, the conflicts between tourists and residents and tour guides’ own deficient responsibilities. These have been overlooked in the previous tour guiding research. Interestingly, five professional guides with outbound guiding experiences, argued that certain behaviours should be attributed to cultural differences rather than being classified as unethical issues.

3.3.2 Analysis of overall training comments

The third and last step in the analysis explored overall comments evaluating the training program. All the participants who completed the post training questionnaire were given the opportunity to offer final comments and Table 8 presents a summary of the key themes that were identified in the analysis. Participants again emphasized the impact of the mindfulness training on their thinking and overall psychology, and they highlighted how they could use the concepts and techniques in the training presented in their own practice. Participants also reflected on their own personal development and on the development of the profession. Finally, some included positive evaluations of the trainer. Many of these sentiments were repeated in the follow up discussion.

Table 3.10

Final comments on the training

Theme	Example
The psychological impact of training	TG 11: Breaking traditional thinking patterns and learning to think creatively from training
Application of learned concepts	TG 13: apply relevant trained concepts like cognition to explain old phenomena

and techniques	TG 15: learn innovative skills for tour guides from training and intend to apply in future training
Critical thinking and reflections on personal or industry development	TG 20: That lesson, I combined some of my own personal experiences. The tourism resources are good, but maybe the development is not too good. What is the result? It has led to the waste of tourism resources.
Appreciate the support of mindful trainer	TG 8: I have still gained a lot from following Mr. Wu and the other peers, learning new thoughts and concepts.

Two weeks after the training period, eighteen out of the previous twenty-seven tour guides attended this two-hour interactive discussion. Most of them still were observed to remain in a mindfulness state and concluded that this training had changed their perceptions on thinking and previously unnoticed issues. This helped them break their traditional thinking patterns and helped them to think more creatively. TG14 stated that “I think tour guide integrity is essential for the sustainable development of the industry. That's why more and more people are choosing self-driving tours, especially after the pandemic for three years, which has gradually shifted people towards self-guided tours and away from travel agencies”. TG 12 argued that “so over the past three pandemic years, I have found that there is a transformation process between ‘crises and opportunity’, that is, there is always ‘opportunity’ after ‘crisis’. And this training was one of the precious opportunities I am so proud to grasp”. Additionally, most of them were committed to applying the trained skills in their future guiding practice, especially techniques linked to presenting multiple interpretations of heritage and new storytelling techniques, to represent the regular tourism attractions from different perspectives. They believed their fresh mind would engage tourists more on the sustainable behaviours under their guidance. What is more, all of them expressed high satisfaction with the entire training program and emphasized that it was a valuable opportunity to learn updated skills, and the different perceptions on social issues from the mindful trainer. This aligned with the argument that mindfulness can also be learned by imitating the behavior of a mindful supervisor (Khoury et al., 2014).

Therefore, critical thinking and reflection on personal and industry have been revealed

from several of their statements. They even expressed doubts about some tourism developments being a waste of tourism resources and criticized the tour guides system and other general policies. Such sentiments are remarkable coming from Chinese guides who have been trained within an authoritarian system and may be concerned about the internet censorship. They displayed their potential needs of independent thinking and speaking, and for providing views that diverge from the conventional thoughts. This aligns with other results from previous mindfulness experiments, which indicate that mindfulness was associated with a desire for self-reliance, and the ability to rely on one's own ideas free from conventions or external pressures (Khoury et al., 2014). Moreover, the present guides encouraged the trainer to implement a continuous program to help them to sustain their mindful state and that more participants could benefit from it, especially in physical meetings. TG 24 suggested that the trained group should prepare a report detailing the issues related to unsustainable regulations and facilities in their cities, seen through their new perspectives, and submit it to the provincial tourism bureaus to share their insights and concerns. Additionally, the advisory group expressed concerns about the potential decline in mindfulness after the training, questioning how they could maintain this state in the future, which they saw as a challenge. They recommended that the trainer not dissolve the WeChat group, enabling them to continue sharing how they apply the skills and knowledge gained in their practical guiding activities.

3.4 Limitations and future research

Before outlining the major conclusions from this study, it is important to recognize some limitations to the research. Firstly, it is important to recognize that the tour guide training was conducted during the COVID19 pandemic when there were major restrictions to travel in China. Chinese tour guides were among the most impacted groups facing the dilemma of leaving or remaining in the profession, and this may have prevented them from fully engaging in the training. In addition, the restrictions meant that the training only able to be implemented online without any face-to-face interaction between the trainer and trainees. It has been argued that the provision of physical spaces for training can result in more opportunities for the development of the trainees (Weiler & Black, 2015). It must also be remembered that this

was one training program and given the more common approach to tour guide training in China which advocates “homogenization” in education and experiences, it could be argued that a single mindfulness training is unlikely to fundamentally change their practice approaches (Huang & Bao, 2021, Moldoveanu, 2000).

Two other limitations include the self-selection of guides volunteering to participate and the assessment of intentions to change practice. In the first case it could be argued that these volunteer guides were already predisposed to be mindful as they were seeking alternative ways to develop their professional skills. While this is an accurate description especially considering the motivations given for participation, the qualitative measures of mindfulness did reveal a statistically significant increase in the overall mindfulness of the group after the training when compared to the level measured prior to the training. In the second case it could be argued that intentions to change guiding practices may not necessarily lead to actual changes in guiding practice. This suggests that the next step in this research program should involve measures of actual guiding practices which can be used to compare guides who have, to those who have not, participated in a mindfulness and sustainability training program.

The suggestion was explored in the second study in the thesis research program which involved selecting and examining the onsite practice of a group of tour guides, comprising both trained and untrained guides, who work at a renowned sustainable tourism attraction, Huangshan in China. Two of the tour guides who attended this mindfulness-based sustainability training program volunteered to be involved in this evaluation. An additional two local guides, without the mindfulness-based sustainability training, were recruited from a pool of few guides selected from the local Tour Guide Association. The study 2 fieldwork sought to examine to explore if and how mindfulness trained tour guides differ in the way they lead tours and how their tour participants respond, particularly in their evaluations of the guides and their attitudes towards sustainability.

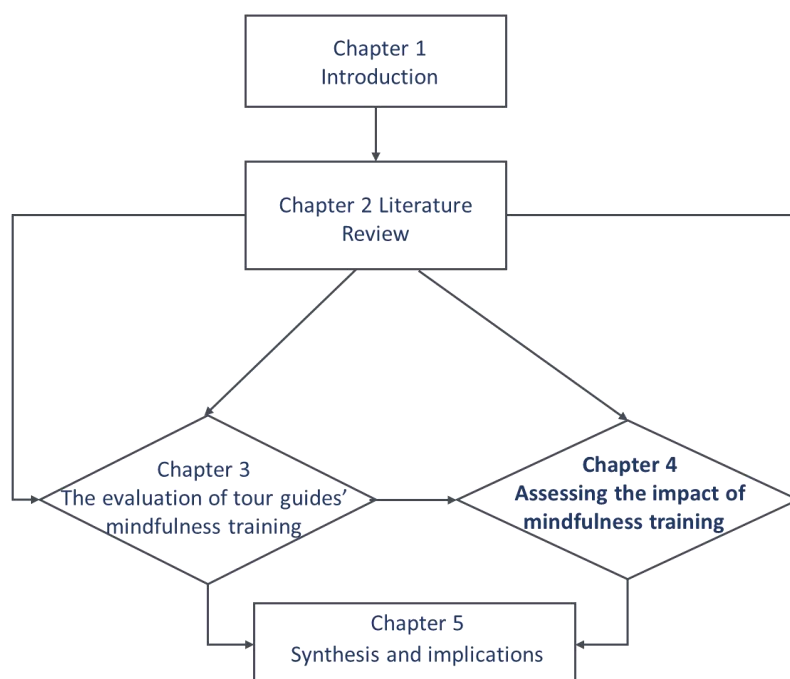
3.5 Conclusions

Despite these limitations the data presented demonstrated that the training program was

effective at encouraging greater mindfulness in the participating tour guides. This provided the foundation for addressing the aims of this study which were to investigate whether mindfulness and sustainability training could change the ways the Chinese tour guides think about and conduct tours in the future, and to explore how encouraging mindfulness for tour guides might change their onsite environmental education and interpretation practices.

Comparing the pre and post training responses, the tour guides demonstrated a comprehensive understanding of the mindfulness concept. They also expressed intention to implement various interpretation skills from the tourism mindfulness model, such as multisensory engagement, variety, interaction and arousing the personal interests of tourists in their future work. Furthermore, they revealed positive shifts in their perception of interpretation and storytelling, transforming from standard guiding techniques to methods that integrated novel thinking and being attentive in contexts. Regarding the problematic behaviours of tourists in relation to tourism sustainability, most tour guides revealed their heightened awareness after the training. They also argued various causes of the issue from different perspectives, rather than merely complaining about the tourists. The pandemic period had clearly affected their psychological states and level of engagement in the training, and the mindfulness training was noticed to ease them with more optimistic to the job. In conclusion, this online training program was convenient and low-cost, and could be widely introduced to better manage onsite tourism sustainability.

Chapter 4. Mindfulness in Motion: Assessing the Impact of Mindfulness Training on Tour Guide Interactions and Sustainable Tourist Behaviours



The overall aim of this thesis is to explore how mindfulness might be used to improve Chinese tour guide skills in encouraging their tour group participants to better understand sustainability issues and to change their actions to support more sustainable tourism. This overall aim was expressed through three research questions:

Question 1: How effective is a tour guide training program implementing mindfulness techniques focussed on changing interpretive practice and encouraging guides to focus more on sustainability with their guests?

Question 2: How do the interactions with tourists by tour guides who have had this mindfulness and sustainability training differ from those who have not been trained?

Question 3: If and how do these trained tour guides encourage more sustainability awareness and behaviours in tourists?

The first element in the research program, reported in the previous chapter, addressed the first of these questions and involved the design, implementation, and evaluation of a mindfulness-based tourism sustainability training program. The results of that evaluation indicated that the guides completing the training were more likely to be mindful at the end than at the start of the training and that they reported greater sustainability awareness and a

desire to adapt their interpretive practices to support greater sustainability. The second element in the research program addresses the second and third research questions exploring if and how this mindfulness-based sustainability training has changed what the participating guides do in practice and if and how these changes the tourist experience. To answer these questions the second study conducted a field experiment comparing volunteer guides who had completed the mindfulness sustainability training with volunteer guides who had not completed the training conducting tours in the same location, Huangshan Mountain in China.

This chapter begins with Section 4.1 which sets the scene for this investigation by providing background to the research focus. Section 4.2 details the methodology, data collection, and analysis procedures employed in this study. Section 4.3 discusses the findings, offering insights into the effects of mindfulness sustainability training on tour guide performance and its impact on promoting sustainable tourist awareness and behaviours in fieldwork. Finally, Section 4.4 concludes with a synthesis of the study's findings, alongside a discussion on its limitations and its implications for both tourism practice and tourism research.

4.1 Introduction

Embracing the socio-cognitive insights of Langerian mindfulness, Moscardo's work (Moscardo, 1996, 1999; Moscardo & Pearce, 1986) introduced a framework for interpretation practice in tourism that highlighted how environmental settings and visitor characteristics synergize to foster mindfulness during interpretive experiences. This exploration has since expanded into diverse areas, including environmental interpretation, the influence of interpretive practices on visitor experiences, and the roles of various interpretive techniques in enhancing ecotourism and heritage tourism (Ganesan et al., 2014; Kang & Gretzel, 2012; Noor et al., 2015). Contributions by Dussler & Deringer (2020), Moscardo et al. (2004), and others have enriched this field. Tan et al. (2015, 2019, 2020) and Eck et al. (2022, 2023) identified key elements—novelty, variety, visitor autonomy, and the incorporation of questions and multisensory experiences—that positively affect visitor mindfulness. These findings not only corroborate Moscardo's earlier frameworks but also suggest strategies for more effectively captivating visitors' attention in environmental and heritage settings. However, the role of personal interpretation, particularly through tour guides and their mindfulness, in

shaping interpretive experiences warrants further exploration. Noor et al. (2015) observed that while printed materials and artifacts enhanced mindfulness, guided tours did not consistently achieve the same effect. Ganesan et al. (2014) pointed out that interactivity and participation are critical for mindfulness, especially in guided tours and when using printed materials. The results of the first study in this thesis, reported in Chapter Three, also provided some evidence that mindfulness training for guides could potentially transform interpretive practices.

Recent findings underscore the pivotal role of mindfulness in shaping tourist behaviours, particularly its influence on fostering a preference for sustainability (Chan, 2019). Walker and Moscardo (2014) also proposed an interpretation model noting that engagement and mindfulness can help tourists experiencing interpretation to better understand sustainability values. Notably, mindfulness has been shown to encourage sustainable attitudes among residents, increasing tourists' inclination towards eco-friendly actions, such as opting for sustainable lodging options and diminishing the appeal of materialism (Errmann et al., 2021; Yilmaz and Anasori, 2022). Dussler & Deringer (2020) explored the benefits of mindfulness training within interpreter development programs, revealing that such training not only enriches interpreters' personal connections with nature but also elevates the authenticity of experiences they provide to visitors. Further, mindfulness training for tour guides was linked to enhanced novelty and innovative thinking in study one, as discussed in the preceding chapter. Nonetheless, the full potential of mindful tour guides in cultivating tourists' sustainable behaviours and awareness during actual tours remains an area ripe for exploration. This chapter aims to delve into this issue further, seeking to illuminate the contributions of mindful tour guides to the sustainable behaviours of tourists in heritage contexts.

Tour guides are pivotal in shaping tourists' perceptions and behaviours, especially in the realm of sustainable tourism. Hu and Wall (2012) outlined a framework for promoting sustainability via tour guides through four approaches: interpretive, directional, behavioural, and educational, though without empirical backing. However, Weiler (2016) suggests that the direct impact of guided activities on tourists' appreciation and sustainable actions remains unproven, with non-guided tours sometimes yielding more positive attitudes and behaviours towards sustainability. Contrastingly, Weng et al. (2020) found that tour guides offer superior

heritage value compared to non-personal forms of interpretation. Furthermore, Pu et al. (2022) observed that tour guides, in their interactions with Western tourists, are encouraged to adopt and promote sustainable practices, fostering a harmonious host-guest relationship. According to Demirović et al. (2020), energetic and enthusiastic guides not only enhance visitor engagement and create memorable experiences but also model sustainable behaviours that can influence tourists beyond the duration of the tour.

The ambiguity regarding the effectiveness of tour guides in enhancing sustainable tourist experiences largely stems from differences in the guides' own understanding of, or potential conflicts with, sustainability principles (Weiler and Black, 2015). It appears that professional guiding techniques and a deep understanding of sustainability are crucial for influencing tourist behaviour towards sustainability. However, Viñals et al. (2021) highlight a critical gap: the lack of evidence supporting the effectiveness of sustainability training and quality assurance in strengthening the link between guiding practices and sustainable tourism.

The topic of sustainability and training for Chinese tour guides has not been much discussed in either English or Chinese academic circles. From 2013 to 2023, the focus on Chinese tour guides in the English-language literature has been limited, primarily focussing on enhancing their professionalism and service quality through official management systems and regular training (Hu & Wall, 2013). Additionally, studies have delved into addressing occupational stigma and fostering a positive stress mindset (Li et al., 2020; Li et al., 2021), as well as improving their interpretative skills and the resultant cultural engagement and tourist behaviours (Cheng et al., 2018; Li et al., 2022; Shi et al., 2023). Kong (2012) was an early voice recognizing the need for Chinese tour guides to elevate their environmental awareness and resource management capabilities. He highlighted that effective training models should not only bolster guides' knowledge and skills but also inspire a shift in their attitudes and behaviours towards environmental responsibility. However, this call to sustainability action has not been significantly pursued in academic research, with only a handful of recent studies hinting at the evolving role of tour guides from mere service providers to advocates of a green lifestyle, albeit without in-depth empirical research on interactions with tourists (Ren et al., 2023). Pu et al. (2022) shed light on a cultural exchange where Chinese Tibet tour guides interact with Western tourists, who, in turn, encourage the guides to embrace and advocate

for pro-environmental behaviours. This suggests a potential avenue for cross-cultural influence on sustainable practices within the tourism industry.

This study arises from a gap in understanding and comparing how mindfulness sustainability training for tour guides can influence their interactions with tourists, and in turn, how these interactions can promote sustainable practices. With tourism being a key driver of both economic growth and environmental degradation, this research could provide valuable strategies for sustainable development from the perspective of tour guides in Chinese contexts.

4.2 Methodology

The overall research program for this thesis is based on action research methodology, integrating various mixed research methods. This broad methodological approach aims to explore how mindfulness-based sustainability training related to tourism could change guiding practice and what, if any, impact this might have on their tourists. At this exploratory stage of the research, it does not seek to generalize findings to a broader population (Creswell & Creswell, 2013).

This specific study within the overall research program used a field experiment to compare trained versus untrained tour guides, employing a mixed-method approach to examine their performance variations. The comparison has two core elements – an ethnographic element using participant observation and interviews with the guides and a quantitative survey of their tourists. To systematically capture essential data points, such as sustainability knowledge transformation, interpretation methods used in practice, and mindfulness interaction awareness, a structured observation schedule and unstructured interviews were utilized by researcher. Tables and figures showing the details of the observation sheets and the questions in the questionnaire will come in the following sections where each method is discussed in more detail. This qualitative research, employing ethnographic methods, is pivotal in understanding the influence of trained versus untrained tour guiding on tourists' sustainable behaviours and comprehension. This was achieved through a focus on interpretation skills and other mindfulness techniques, ultimately contributing to the promotion of sustainable tourism practices. Additionally, the study gathered nuanced insights through audio recordings of the tour guides' interpretation

introducing information about the scenic spots being visited.

The detailed satisfaction of tourists with experience and their evaluations of the destination and the guides was measured through a post-tour questionnaire for the tourists. It focused on their perceptions and recall of sustainability-related information with quantitative questions. By targeting a sample of tourists who have experienced guided tours, the questionnaire facilitates the statistical analysis of responses, enabling us to identify levels, correlations, and potential relationships between the researched variables (Johnson & Turner, 2003). The quantitative nature of this approach allows for an understanding of how trained versus untrained tour guides influence tourist experiences and their awareness of sustainability in tourism, providing a solid foundation for recommendations aimed at enhancing the quality and impact of tour guiding on tourists (Shannon-Baker, 2016).

4.2.1 Case study area

This study adopts a field experimental design in Huangshan Mountain, which is suited in the East China Province of Anhui, covering 15,400 hectares. It was awarded UNESCO World Natural and Cultural Heritage in 1990 and has been recognized as a UNESCO Global Geopark, and a Chinese top 5A Scenic Attraction. There were several reasons for choosing Huangshan as the study case. Firstly, one-third of the tour guides who attended the previous mindfulness-based sustainability training were from this area. Two of these trained guides expressed their willingness to participate in this field work. Secondly, the Huangshan region is one of the most visited attractions in China, with its visitation reaching 4 million in the half of 2023. This makes it easier to join trips with similar itineraries led by different guides in a short period. Thirdly, the region's tourism industry has been used as a driver for regional sustainable development. The path toward sustainability covers three different scales: core area (the bordered park where tourists should buy tickets to enter); the surrounding community (five towns in the buffer zone); and Huangshan City (Xu et al., 2016). Lastly, the researcher has been involved in several tourism planning projects within the Huangshan region and has maintained a long-time connection with the Huangshan Tour Guide Association committee allowing the researcher access to examine the case from a holistic and dynamic view.

Sustainable development of Huangshan Region

The development of tourism in the Huangshan Region has served as a significant catalyst for local economic growth yet maintaining a sustainable approach has posed challenges over the past four decades. Historically, this less-developed region primarily relied on agriculture, with a landscape dominated by mountainous area. This background set two key challenges for sustainable tourism development, poverty alleviation and general economic development, as noted by Xu et al. (2016). At the start of its tourism exploration, Huangshan emerged as one of the China's sought-after destinations. Domestically and internationally, tourists gravitated towards Huangshan Mountain and its surrounding ancient villages, establishing them as popular locations on travel itineraries. The tourist numbers grew exponentially, from approximately 1 million in 1998 to 70 million in 2023. Visitors come on a visit to seek the magnificent scenery of the mountain and traditional Chinese cultural heritage. While this surge in visitors contributed greatly to the local economy, a more urgent issue for the local government is how to ensure sustainable tourism development and natural and cultural preservation. Since recognizing the above difficulties, numerous sustainability management measures as well as other relevant laws, conservation plans and regulations have been enacted to preserve the Huangshan region (Zhu et al., 2019). The site has also established a Conservation and Management Committee, which oversees and co-ordinates the World Heritage Management Office and other dedicated management and conservation bodies. These measures have also provided legal and administrative support to safeguard the authenticity and integrity of Xidi and Hongcun villages, and other ancient villages in the region (Xu et al., 2016). To some extent, these approaches have enhanced the monitoring and management of the heritage site and its surrounding area but at a broad and macro level.

However, persistent unsustainable or unethical practices such as visitors staying in the toilets or lobbies of hotels overnight, severe congestion caused by thousands of visitors waiting for cable cars and littering on cliffs have been reported. These issues have been highlighted in the media over many years, indicating that regulations have failed to address the onsite behaviour of many tourists. The engagement of tour guides in a mediating role to raise sustainability awareness among visitors has been seen as one of the crucial, effective and low-cost approaches that remains underexplored in China (Esfandiar et al., 2019; Meschini et

al., 2021; Pu et al., 2022; Sun et al., 2022). Hu et al. (2019) applied the theory of planned behaviour (TPB) to examine factors influencing tourists' intention to engage in environmentally responsible behaviours, specifically in relation to the Zero Litter Initiative in Huangshan. Recent studies have investigated the relationship between the perceived authenticity and values of ecotourists, and their relationships with revisit intentions and environmentally responsible behaviours in this region (Yang et al., 2023). All these studies employ quantitative methods to collect data from samples of tour guides. Nevertheless, there remains a significant gap in understanding how these local tour guides leverage their professional skills and mindful approaches to effectively communicate sustainability information to tourists. Incorporating a control group of untrained guides for further comparison through qualitative methods enriches this research. Huangshan is an ideal case study location for probing these questions, highlighting the need for a more in-depth exploration of the training tour guides have in promoting sustainability awareness among visitors.

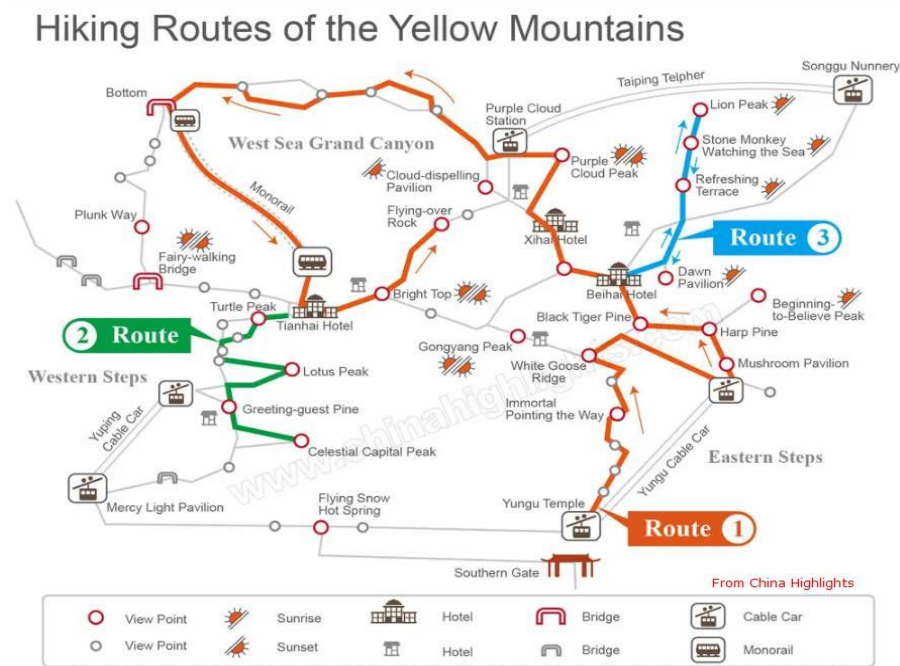
The typical guiding itinerary

As the Huangshan region covers a large area, it is renowned for its iconic itineraries that feature Huangshan Mountain and the surrounding ancient villages. Visitors often enlist local tour guides to navigate the most celebrated routes, ensuring an immersive experience of the unique landscape and providing insightful interpretations of the nuanced traditional culture of these areas. Figure 4.1 provides details on the main hiking pathways in the area. Huangshan Mountain stands out as a key spot in this visiting itinerary, acclaimed through its Mesozoic granite landscape that rises from 500 metres to 1,864 metres. This mountain is widely celebrated in the traditional landscape literature of Chinese history, named the Shanshui 'mountain and water' style in the mid-16th century. Huangshan Mountain is distinguished by its "5 Wonders of Nature": spectacular rocks, peculiar pines, cloud sea, hot spring, and winter scenery. In addition to these features, it boasts glacial, hydrogeologic heritage, along with rich biodiversity, including various wild plant and animal species. All these make Huangshan a large-scale natural museum of a granitic region with mountain, water, human culture, flora and fauna (<https://en.unesco.org/global-geoparks/huangshan>). To better appreciate these natural beauties, several designed hiking routes were recommended in the following map and

most tour guides will lead their groups of visitors to take the longest Route 1 from the front to the back of the mountain, offering visitors a full experience of majestic beauty.

Figure 4.1

Hiking routes of Huangshan (Yellow) Mountain



Note. Adapted from <https://www.trippest.com/huangshan-travel-guide/how-to-plan-a-trip-to-yellow-mountain-huangshan/>

Figure 4.2

The natural beauty of Huangshan Mountain



Figure 4.3*The Hongcun Village*

Close to the Huangshan Mountain, Xidi and Hongcun are two outstanding ancient villages, within the Huangshan Region, serving as key destinations in the popular itinerary. These villages represent the unique characteristics of ancient Huangshan architecture and village layout from 14th and 20th centuries, a period when Huangshan Region's cultural, artistic, architectural, and culinary influences were paramount in China. This area also saw the rise of the a branch of Confucianism philosophy with a long-term impact on Chinese literature (Yan & Morrison, 2008). Xidi and Hongcun experienced a thousand years of continuous transformation and development, while preserving their essence as traditional Chinese villages with commercial economies and clan-based social structures. The villages faithfully preserve elements to attract the tourists, including the surrounding environment, manmade artificial waterways, the village layout, decorative wooden and brick crafts, construction methods and materials, and the overall appearance of the villages (UNESCO, 2000). Xidi and Hongcun are ideal sites for the research to compare the different interpretation methods to

World cultural heritage through trained and untrained guides.

4.2.2 Participants Recruitment

The field work took place in June and July 2023, coinciding with Huangshan's peak season. The research design required a two-day itinerary, including an overnight stay to fully observe the behaviours of tour guides and guests. Moreover, the two-day itinerary was highly recommended to encompass tours through both hiking the Huangshan Mountain and visiting Xidi and Hongcun. Two tour guides Trained Guide 1 and Trained Guide 2 from the Huangshan region who had attended previous mindfulness-sustainability training program volunteered for the research. In terms of meeting the time and route requirements of the tour, these two trained guides discussed the research with their travel agencies and obtained consent from the tourists. The researcher then participated in these two packaged groups being introduced as an intern tour guide deployed by the local Tour guide association.

Table 4.1

Two Trained Guides Information

Trained tour guide	Two days tour itinerary	Guide certificate level	Age	Years of experience	Education level
Trained guide 1	Hongcun village &Huangshan Mountain	Junior	31-40	7-15	Vocational college
Trained guide 2	Xidi Village, Huizhou Culture Museum and Huangshan Mountain	Intermedia	41-50	Above 16	Vocational college

Two additional guides, without experience of the mindfulness-based sustainability training were recruited from a pool of sixteen local guides recruited through the Huangshan Tour Guide Association. This association supported the study by posting an information sheet (see Appendix F) to solicit volunteers from this specific group. Among the sixteenth untrained

guides, three guides were excluded for only conducting one- day tour during the study period. Six others were unable to participate due to lack of permission from tourists or travel agencies. Other volunteers did not visit either Huangshan or ancient village or had demographic profiles that were different to the two trained guides. Consequently, the two untrained tour guides were chosen, Untrained Guide 3 and Untrained Guide 4. The deliberate selection of these four tour guides was considered sufficient for the project objectives. The study involved eight days of field research enhancing the study's robustness and accuracy (Lincoln et al., 2011). The researcher paid for the fee of the tour and played the role of an ordinary tourist.

Table 4.2

Volunteered untrained tour guides information

Untrained tour guide	Two days tour itinerary	Guide certificate level	Age	Years of experience	Education level
Untrained guide 3	Hongcun, Xidi Village &Huangshan Mountain	Junior	31-40	7-15	Bachelor
Untrained guide 4	Huangshan Mountain	Junior	41-50	7-15	Vocational College

4.2.3 Data Collection methods

As noted earlier this study employed three main methods to collect data; participation observation of the tours, interviews with the guides, and a survey questionnaire completed by the tourists.

Participant Observation

Participant observation involved the researcher immersing himself in the social world of the tours by becoming a member of each group, and noting, and recording key elements of the interpretation provided. The researcher attempted to participate in the activities without being noticed. This process sums up a dual purpose: to take part in the activity or event being studied and to observe those whose lives shape and are shaped by this social world. This

approach requires researchers to keep close to those being studied, to observe and talk to them to produce detailed accounts of their behaviours, interactions, language, and the events that shaped the experience being studied (Patton, 2015; Saunders et al., 2019). Then the observer may come to understand the symbolic world of the informants and their perceptions about their social situation, then develop a deep and nuanced understanding of the meanings of informants' interactions, and how they respond to their social situation and their adaptability to changes within it (Creswell, 2013; Markee, 2012; Scarduzio, 2017).

Observation methods have been extensively used in tourism research to record the nuanced cognitive perceptions of tourists or tourism stakeholders. Numerous studies have employed observation techniques to gain a deeper understanding of ecotourism practices of the tour operators or guides (Sangpikul, 2020; Walker & Moscardo, 2014). To participate in the tours led by trained guides, the researcher was introduced to the group of tourists at the beginning of the trip as either an intern tour guide or as a regular tourist to minimize disruption and make unobtrusive observations.

Given the difficulty in recording all aspects as they were conducted, especially when the tour guide is articulating relevant sustainability ideas to tourists at length, and that as an unobtrusive participant observer, it may not always be convenient to make notes in public (Saunders et al., 2019), several techniques were used to gather data about the guide performance and the conduct of the tours. To mitigate these issues and ensure a thorough collection and analysis of data, a structured observation form was used to take notes and audio recordings were employed to capture key information provided by the tour guide. Before each trip, the researcher obtained written informed consent from the tour guides and the tour guide was invited to record some of their interpretations, in audio format, and provide them to the researcher. This enabled the researcher to check the accuracy and completeness of the notes. A structured observation template (see Table 4.4) was designed to capture all relevant mindful actions and information provided by tour guides at significant spots (Dussler & Deringer, 2020; Hu & Wall, 2012; Poudel & Nyaupane, 2013). The template focused on capturing the various interpretation techniques and skills adopted by tour guides in their interaction with tourists, including storytelling elements, and mindfulness factors including, novelty, openness, relevance, and engagement. To improve the efficiency of notetaking during

the observation of tour guides in Huangshan, the observation template was prepared in both hardcopy and digital formats, accessible via phone. The observation template was designed to systematically categorize various aspects of the tour, including guide interactions, storytelling topics, sustainability discussions, and mindfulness practices, offering clear checkboxes for swift documentation. After attending a pilot tour in June 2023, the researcher refined the outline based on the experience. A qualitative analysis was applied to this data to explore the differences between the practices of trained and untrained tour guides and their respective impacts on tourists (Creswell, 2013; Saunders et al., 2019).

Table 4.3

Observation Note Template on Tour guides

Tour guide responses	Click the option		
Sustainability with tourist civilized behaviour, forbidden principles, general policies	civilized behaviour	forbidden principles	general policies
Main story theme by tour guides: history, politics, culture, nature, fiction	Concern with sustainability	Not relevant	
TG's action concerning the sustainability Ways of conveying	Performance	Interpretation	others
Conveying tools (mouth, microphone, map, others)	One way	Two-ways	
Attitude and reaction to positive behaviour of tourists	Mouth	Microphone	Map
Attitude and reaction to negative behaviour of tourists	Appraise	Ignore	Others
TG' general awareness and understanding of the impact of tourism on the local sustainability	Educate	Punish	Ignore
Mindfulness condition applied in conveying the concept (novelty, openness, relevance, engagement)	High	Moderate	Low
1. Disturb or feed wild monkeys. 2. Littering. 3. Scribbling or drawing on rocks or trees.	Novelty	Openness	Relevance

4. Collecting plants as specimens or souvenirs without permission. 5. Wasting water and food resources on the mountain. 6. Smoking and littering in non-designated areas on the mountain. 7. Climbing dangerous terrain and facilities in the scenic area at will. 8. Dumping instant noodle soup water indiscriminately, polluting pine trees. 9. Others

Sustainability in economy:

Sustainability in nature:

Sustainability in culture:

Note. The practical on-site observation form was in Chinese

Given the physically demanding nature of hiking Huangshan Mountain, characterized by exhaustion and crowded paths, note-taking was strategically limited to rest periods. This approach allowed quick, shorthand notetaking for efficiency, supplemented using a smartphone's voice recorder for capturing detailed observations that were challenging to document in writing. This method was useful for noting particularly interesting points made by the tour guide or observing any unethical behaviours on site. In the bustling environment of ancient village, where noise and congestion could overwhelm, photography was employed, to visually augment notes. This was especially valuable for documenting the use of multisensory engagement methods by tour guides. Additionally, each tour guide was requested to provide any available interpretive recordings as supplemental observational material. Each evening, following the day's tour, researcher was dedicated to reviewing and expanding upon the notes taken, capitalizing on the clarity provided by fresh memory. This process was crucial for accurately documenting the tour guides' performance and the engagement level of the tourists, forming a comprehensive dataset for later analysis. A total of forty photographs and twelve audio recordings, totalling seven hours, were collected, providing a rich foundation for the observational template. This template, refined from the collated transcripts and categorized across various dimensions from four guides, was systematically organized into an Excel sheet for qualitative analysis.

Interview of the tour guides

At the end and during the free time of the tour, the four tour guides were informally interviewed with open-ended questions to gather their reflections on the tour and their

comments on the behaviour of the tourists. The interview method, widely recognized in research literature as a fundamental tool in qualitative research, is particularly pertinent in tourism studies due to its adaptability and the depth of insights it offers. This method allows for the direct collection of comprehensive and nuanced information from respondents, involving the researcher asking questions and recording the responses of interviewees. This approach is particularly valuable for exploring complex issues, uncovering new insights, or capturing in-depth information that might be missed by other methods such as surveys or observational studies (Goodson & Phillimore, 2004; Jennings, 2001).

Different types of interviews are highlighted, each with unique benefits and limitations. structured interviews, for example, are highly systematic and follow a predetermined set of questions. This format ensures consistency and is conducive to statistical analysis, though it might restrict the depth of responses. Conversely, unstructured interviews are more open-ended, offering rich, detailed data, ideal for exploratory research where hypotheses are not yet formed. Semi-structured interviews strike a balance, combining structured and flexible elements. Látková et al. (2017) employed a semi-structured interview method to explore the roles of tour guides in Cuba and their perceptions regarding tourism development in the region. This method can deeply highlight the critical role of tour guides in shaping tourist experiences and their unique insights into the impacts of tourism development. The interviews conducted individual semi-structured interviews in understanding the factors contributing to the well-being of tour guides in adventure tourism settings (Mackenzie & Raymond, 2020).

The skillset of the interviewer is underscored as a critical factor in the success of this method. Effective interviewing is not just about asking the right questions, it also involves listening skills, the ability to interpret non-verbal cues, and building a rapport with interviewees. These skills are essential for fostering open and honest communication, thereby ensuring the collection of high-quality data. Ethical considerations are also a significant aspect of the interview method. The literature emphasizes the importance of obtaining informed consent, maintaining confidentiality, and respecting the privacy of participants. These ethical practices are not only crucial for protecting participants but also for maintaining the integrity and credibility of the research (Yang Liu et al., 2021).

Based on the onsite observation and pilot tour, the following open-ended questions were

asked of the guides:

- How do you think of the general behaviours of these guests? Any unethical aspects of tourism?
- What topics of Huangshan would you prefer to discussing with the guests?
- How do you integrate this tour experience with their everyday life?
- Do you raise issues related to the sustainability/management of scenic spots, to the guest? Are they interested in this? And how do you convey this relevant knowledge to them?
- Which stories do you think tourists were most interested in and why?

Interviewing tour guides with the above questions is crucial to understanding the practical impact of mindfulness-based sustainability training on their actions and how these changes affect the tourist experience. By exploring guides' perceptions of tourist behaviours, preferred discussion topics, integration of the tour into daily life, approaches to sustainability, and storytelling preferences, researchers can assess the effectiveness of the training. It enables a comparison between trained and untrained guides, providing insights into how mindfulness training influences guide interactions, content delivery, and ultimately, tourists' engagement with sustainability practices in a specific cultural and environmental context like Huangshan.

While all the tour guides consented to participate, they expressed a preference for informal discussions over formal interviews. This approach not only facilitated a more relaxed exchange but also reflected a cultural tendency towards modesty. One untrained guide exhibited caution when responding to sensitive inquiries, necessitating a nuanced approach to elicit responses. The trained guides were more open to onsite chatting and online interviews and discussions over dinner after the tours, resulting in several hours of audio recordings and extensive notes, all of which were transcribed for further qualitative analysis.

Questionnaire for the visitors

At the end of each tour, tourists were briefed on the study by the researcher, representing the Huangshan Tour Guide Association, and invited to complete a short questionnaire voluntarily. This request was made both in person with hard copies as well as via a WeChat

group shared by one the tour guide, using an online Qualtrics code. To encourage participation, local snacks and pastries were offered as incentives. Out of 125 visitors (excluding children under 16), a substantial majority consented to participate, yielding 112 responses and with 99 valid responses. This tourist questionnaire was designed to elicit information on key areas as presented in Table 4.4.

Table 4.4

Summary of Tourists Questionnaire

Key topics	Design reason
Guide's Knowledge and Presentation Skills	In Huangshan's diverse landscape, the guide's knowledge about its unique geological formations, flora, and fauna, combined with storytelling of historical and mythological tales, enhances the tourist experience by bringing the mountain's mystique to life.
Perceived mindfulness of the tour guide	Assessing tour guide actions selected from the research of Huang et al. (2014) and Moscardo (2014)
Satisfaction with the Tour Experience	Tourists' satisfaction is deeply influenced by how well the guide can showcase Huangshan's natural beauty and cultural significance, meeting or exceeding their expectations for an immersive experience.
Environmental Awareness and Behavior	Given Huangshan's ecological sensitivity, the guide's emphasis on conservation education is crucial in fostering tourists' responsible behaviour, ensuring the preservation of this heritage site for future generations. This includes perceptions of key messages about the site and reporting on various approaches that the tour guide could take to promote tourists' sustainable behaviour (Jamaliah et al., 2021). These sustainable behaviours of tourists were based on the options developed by (Kyoung et al., 2010; Ballantyne et al., 2011). These items were divided into two dimensions: onsite tour guides suggestions and after trip long-term sustainable behaviour in daily life. The former options were based on the local regulations "Regulations on the Management of Civilized Tourism Behaviour Records in Huangshan Scenic Area" released by Huangshan Management Committee in 2018 and some media reports. The latter

	option was developed from Ji et al. (2010), with additional research to determine specific responsible behaviours that could be implemented in the future.
Personal Connection and Relevance	The questionnaire probes how guides make the Huangshan experience personally resonant, linking its scenic vistas and cultural stories to tourists' individual interests, deepening their connection to the site.
Future Behavioural Intentions	Questions about future sustainable behaviours in daily life and revisiting intentions gauge the lasting impact of the Huangshan tour, assessing how the experience influences tourists' commitment to sustainable tourism practices.

In total, the questionnaire contained 28 questions (see Appendix G for the complete questionnaire). Where appropriate items are measured using a 5-point Likert-type scale, where “1” to “5” represent “strongly disagree” to “strongly agree”, “strongly satisfied” to “strongly unsatisfied”. For the translation work of questionnaire, the researcher worked on the first draft of the translation, focusing on conveying the exact meaning of each question while considering cultural sensitivities and linguistic nuances. Then an academic in tourism who is fluent in Chinese and English was invited to review the whole draft and to ensure that the translated questions maintain the intended meaning and tone. This step involved back-and-forth adjustments between the interviewer and translator to refine the wording (Braun & Clarke, 2006). Before beginning data collection, a pilot test was carried out in June 2023. This pilot test was used to check for clarity, understanding, and cultural appropriateness. Feedback from this test lead to some minor refinements in the vocabulary. After minor changes related to wording and spelling, a final questionnaire was developed and printed out with 2 pages of hardcopies, enabling the survey to be easily completed at their convenience by all ages of tourists who may not be capable of using the online survey. An online survey with the same questionnaire was also prepared through Qualtrics with generating a scanned code. One hundred and twelve responses were collected in total and 99 were deemed valid. Profiles of the tourist sample will be provided when the tourist survey results are discussed later in this section.

Table 4.5*Fieldwork Data Collection summary*

Tour guide(T/UT)	Tour date	Total tourists	Survey samples	Observation
Trained 1	July 14-15,	27	23	Yes
Trained 2	July 11-12	33	29	Yes
Untrained 3	July 17-18	31	23	Yes
Untrained 4	July 4-5	34	24	Yes
Total		125	99	

4.3. Results and Discussion

4.3.1 Differences between Trained and Untrained Guide Performances

Mindfulness was used as the framework for the guide training program evaluated in study 1. Within this framework it was argued that mindfulness could assist the guides to question their own practice, and to be more open to sustainability information and making changes to their tours to encourage their tourists to be more aware of sustainable behaviours on site. It is important to remember that mindfulness is a necessary but not sufficient condition for learning and change (Moscardo, 1999). Thus, this second study was not focused on differences in mindfulness between the trained and untrained guides but rather on whether and how the mindfulness-based sustainability training program resulted in different guiding practices. Given that all the guides in this second study volunteered to participate and were aware they were being observed it would be expected that they would all have higher levels of mindfulness during the fieldwork. All four guides completed a mindfulness test at the start of the fieldwork. To maintain consistency and reliability, the same 13-item Langerian Mindfulness Questionnaire in its Chinese version, used at the end of the training study, was readopted to assess the mindfulness level of the four guides. It has been validated in several pieces of literature with high reliability in Chinese contexts (Hu et al., 2014; Tong, 2019; Yuan & Tong, 2019). Each tour guide was asked to complete the questionnaire in printed hard copy, and the results were then transferred to SPSS for analysis. The mindfulness level could range from a low of 13 to a high of 93, with any score above 52 considered mindful. The use of the scales confirmed that all the tour guides demonstrated a high state of mindfulness, which was as expected as all had volunteered to participate in the study (see table 4.6).

Table 4.6*The mindfulness score of four guides*

	Trained guide 1	Trained guide 2	Untrained guide 3	Untrained guide 4
Mindfulness Score	56	62	61	70

The focus of the observations and guide interviews in the present study were to explore how this mindfulness translated into guiding practice, especially with respect to sustainability. The aim was to examine if the sustainability and interpretation training resulted in different guiding practices when the trained and untrained guides were compared.

It was hoped that the mindfulness-based training would encourage guides to:

- adapt and use the mindfulness exercises, such as encouraging tourists to use multiple senses and to consider different perspectives on a topic or place, showcased in the training program with the guests on the tours,
- to apply mindfulness principles, such as varying key features of the experience, use of stories, encouraging guest engagement with places being visited, and encouraging guests to find personal connections to the interpretation topics covered, to the overall structure and management of the tour,
- be more reflective about and innovative in how they conduct tours through things such as their responsive to tourists, use of different tools to communicate with tourists and willingness to adapt to tourists needs, and
- include more overt discussions of tourism sustainability issues on and beyond the site.
- Convey the sustainability knowledge and behaviour in a more flexible and novel way.

These expectations were then used as key elements to examine in the content analysis of the guide interviews and through the tour observations.

The interviews and observations were subjected to a thematic coding process with four key steps.

Step 1 Identifying Theoretical Frameworks: The key concepts and theoretical frameworks relevant to the present study were Langerian Mindfulness, Storytelling, Sustainability, and Interpretation within the context of tourism or environmental education, particularly as they

apply to the Huangshan area (Moscardo, 2017)

Step 2 Developing Codebook: Based on these frameworks, a codebook was created that outlined operation definitions for each theme. For example, the responses from the interview and observation were summarized into the codebook concerning about their storytelling, “We love to tell the stories of how to construct the grand residence to meet the curiosity of some specific tourists”, “Stories about ancient scholars living in this region required by some parents used to help them to educate the kids to study hard”. Then the code of “tailored storytelling by guests” was categorised under the theme of storytelling.

Step 3 Applying Codes: While reading the audio scripts of interview and checking the observation notes, the codes were applied. For example, if a guide was observed or talked about using WeChat and sharing digital photo as different tools to communicate with tourists, that was categorized as new interpretation skills.

Step 4 Extract new patterns: Examine the codes to extract any patterns relevant to the study that could contribute new understandings to the field. For example, while Western uses of the term sustainability were not addressed much by either trained guides or untrained guides, the trained tour guides did integrated features of western approaches to sustainability with relevant Chinese principles named “Two mountain theory” by President Xi. It means “lucid waters and lush mountains are invaluable assets, as golden mountain and silver mountain” (绿水青山就是金山银山) (Wang & Lei, 2020). It suggests that preserving the natural environment, including water and greenery, is as valuable as economic wealth from shifting towards a more sustainable and environmentally conscious approach to development in China, advocating for a balance between economic growth and environmental preservation. This philosophy shares the similar theory with sustainability and was greatly propagandized in China so can be easily accepted by the Chinese tourists.

The following sections and tables summarise codes from the interviews and observations that contrast differences and similarities between the trained and untrained tour guides in their guiding practice.

Table 4.7*Use of mindfulness exercises with tourists*

Guide category	Multisensory experiences	Increased awareness of variety and context	Make tourists engage or build personal connections	Reflection and creative thinking
MF Trained	<p>In here summarise main points from the two trained guides with 1 example</p> <p>Ask tourists to use taste and smell in understanding the local culture: taste the pastry in the traditional bakery shop and smell the stinky fish and Tofu in the dinner to better understand the traditional living style of residents in mountainous geography</p>	<p>Encouraged the tourists to open minds to view the shape of rocks with their own imagination, not follow the regular names</p>	<p>Connect the occupation of tourists with interpretation to engage them: focus on the interesting topics of the traditional Chinese education system in ancient Huangshan region to the visitors who are middle school teachers.</p>	<p>Reflect the local culture, the advantages are also the weak points to guests. Ask the visitors to think deep of the decline and development of local businessmen in history</p>
Untrained	<p>Don't encourage the tourists to touch and perceive the objects: ask guests not to touch the wooden carving in the ancient house</p>	<p>Ask the tourists to view the surrounded scenes with regular interpretation: just describe the shapes of rocks in Huangshan as the fixed figures in the fairy tales showed in official tour guiding textbook Low awareness in variety of contexts: not help guests to compare the main differences between the two ancient villages</p>	<p>Promote the various types of tea to guests and mentioned who purchased this will become as rich as the former businessman as they also enjoyed the same tea</p>	<p>Showing fatigue in guiding work, just fulfil her responsibility to lead the groups by the travel agency.</p>

Table 4.7 summarises the use of mindful interpretative techniques by the two groups of guides. It is important to remember that the mindfulness-based training including a discussion of how to apply various mindfulness-based principles to interpretive practice. Multisensory awareness in previous literature refers to the strategic design of consumers' experiences that stimulate all five senses: sight, sound, smell, taste, and touch (Spence et al., 2014). In tourism, this approach aims to create a fully immersive experience that enriches the tourist's engagement with their surroundings, making their visit more memorable and satisfying. Both trained and untrained guides had tried to enhance the multisensory awareness of tourists in appreciating the unique shape of rocks, understanding the ancient culture of villages. However, the trained guides used more mindful and creative interpretation, questioning, and interaction, which can better encourage the tourists to appreciate the beauties or characteristics and inspire themselves (Hughes & Moscardo, 2017).

For example, during one dinner, the trained guides kindly requested that the guests refrain from eating immediately but instead smell the fish and inquire whether it had gone bad. Some tourists were a bit astonished and then responded with humorous answers. Then, trained guide 1 explained that the stinky smell was due to preservation techniques. Fermentation, as in the case of stinky fish and tofu, is an ancient technique that not only preserves food but also enhances its flavour and nutritional value. Over time, these preserved foods have become an integral part of local diets and culinary traditions. One female tourist further inquired whether she could ferment it using the same process at home. The guide replied interestingly, "Probably not," as she would need to stay here for 1 month to learn the secret technique, and then there was one more unique recipe that could not be learned – the typical Huangshan humid climate. Her humorous reply made all the tourists laugh and further explained that the unique smell of local stinky food could contribute to urban identity, building on the strong links between smell, limbic processing, and emotion (Henshaw et al., 2016). *"They are not just about sustenance but also carry significant cultural and symbolic meanings. These unique Flavors of stinky fish and tofu are appreciated as part of the cultural heritage of the Huangshan region."* After this interpretation, several tourists at the dinner table felt excited and immediately asked the trained guide where they could purchase the authentic products to take back as souvenirs or gifts for friends. This meets the demand of Chinese

shopping motivation to maintain Guanxi (Jin, 2019). In the tourism industry, customers' brand advocacy for the tour guide is more prominent than for the travel agency in tourism industry, and the former will eventually help build stronger corporate brands (Yang Liu et al., 2021). This mindful interpretation could play a role in marketing the local products, naturally increasing the development of economic sustainability in tourism. In summary, mindful interpretation can lead to appreciation and promotion. However, in comparison, the untrained guide only asked the guests to enjoy the special taste of the local fish without any interaction or interpretation.

In terms of the variety of contexts, the previous training sessions suggested that guides should be attentive in different settings, and even in environments familiar to guides, they should strive to find clear distinctions or comparisons to make a lasting impression on tourists, many of whom are visiting for the first time. For instance, at the Yupinglou site, untrained guide 4 encouraged guests to view each rock from the correct angle to match its given name. Many rocks have been assigned poetic Chinese names based on their shapes, legends, or the inspiration they evoke. For example, "Dreaming of a Pen Blooming Flowers" (梦笔生花 (Mèng Bǐ Shēng Huā)), a rock that resembles a brush writing in the sky, symbolizing the power of literary creation and imagination. Another formation, "Monkey Gazing Over the Sea" (猴子观海 (Hóu Zi Guān Hǎi)), appears to depict a monkey sitting and staring out over a sea of clouds, though it may not be immediately evident as a monkey shape to first-time viewers. Trained guide 1 encouraged guests to open their mindsets, use their imagination freely when viewing the rocks, emphasizing that there are no wrong answers, "a foreigner might not understand with the shape of a traditional Chinese brush". As a result, some guests happily compared the formations to a "Transformer," a "Mobile phone," or even "His grandfather." He validated their creative interpretations, mentioning that all the names were given by experts decades ago and should be open to updates and reinterpretations by everyone. He explained that the rocks did not look the same millions of years ago, detailing the scientific reasons behind the distinctive rock formations of Huangshan, which are sculpted from granite through millions of years of erosion, weathering, and natural forces. His guiding process resonated with what he has described in the study 1 post training questionnaire about how to apply mindfulness "Learn to accept new things and new types of thinking and apply new thinking to solve real problems".

Conversely, untrained guide 4 merely attempted to direct guests towards 'correct' shapes and even expressed frustration when guests found it challenging to see the intended shapes. Then he adopted a dismissive approach to introducing these rocks by resorting to fairy tales without incorporating information, detracting from the tourist experience.

Making personal connection to the situation is a key characteristic of mindfulness. Mindful training for tour guides could equip them with the skills and awareness needed to facilitate deeper personal connections for tourists within various contexts of a tour, allowing guides to tailor their narratives to the interests and backgrounds of the tourists. By sharing relevant introductions that resonated with the tourists' occupation of middle school teachers and curiosities in ancient education systems, trained guides 1 and 2 fostered a personal connection between the tourists through a comparison of the education topics in the past and present. In contrast, the two untrained guides expressed more about promoting the various types of tea to guests and suggesting those purchased this tea could become rich as a former local businessman also enjoyed the same tea. This connection approach seems a bit misleading, as it suggests that just by drinking the same tea, tourists could achieve wealth. It overlooks the real cultural and historical value of the tea, turning a potentially meaningful cultural exchange into just another sales pitch. Essentially, the guides made it sound too simple: buy tea, get rich, which didn't really respect the deeper stories of the region or the complexity behind true success.

Reflective thinking from different perspectives, intensively discussed during the training stage, highlighted the main differences in interpretation between trained and untrained groups. Trained guide 1 emphasized guides needed to "*Make full use of imagination and apply it to practical work, approach the same thing with different thinking methods, and convey emotions*". This flexibility allowed trained guide 2 to integrate controversial opinions on topics traditionally praised by most other guides, such as the notion that the advantages and disadvantages of business tycoons can both contribute to their development and decline. With further explanation, she concluded that traditional elements of Chinese Confucian spirits, such as piety to the clan, loyalty to the emperor, and wealth for the family, initially led to their success but later hindered their ability to innovate and evolve in business development. Moreover, she reminded the guests the Huangshan region during the Qing Dynasty operated

within a context that offered unique opportunities tied to the area's abundant natural and cultural resources. However, this later shifted to challenges due to the remote environment, socio-political instability, and the conservative nature of Qing society. While untrained tour guides highly praised the local businessmen for their wealth during that period, they seldom mentioned their decline and its connection to the historical background, instead strongly encouraging tourists to learn from them to become as wealthy as possible. Overall, the trained tour guides were more likely to reflect and interpret special local culture and nature for visitors. Their various perspectives of understanding and knowledge of the area's history, traditions, and cultural nuances can significantly enhance the tour experience, offering guests a more immersive and meaningful encounter with the locale.

Table 4.8

Observations on tour guiding

Guide Category	Trained guides	Untrained guides
Interpretation tools	Speaker and wireless receiver, online chatting group and digital photos	Mouth and speaker
Story telling	Well-structured stories on the key characteristics of ancient villages Telling stories with history and scientific proof	Loosely structured stories about contemporary celebrities Telling anecdotes with less evidence
Sustainability issues	Integrate the sustainability knowledge with Chinese theory, point out the regulations and policies to affect tourists' sustainable behaviour	Ignore the visitors' normal unethical behaviour, and treat it as their private business

During the tours, the researcher observed the interpretation methods used by four guides, both in coaches and on-site (see Table 4.8). It was interesting to note that the untrained guides relied solely on their voices and regular speakers for communication. When interpreting the ancient village in a small room, their voices, mixed with those of other guides, made it difficult for tourists to hear clearly. This not only affected the tourists' ability to effectively receive information but also constituted a form of disturbance. The guides were indifferent to this issue, replying that they were accustomed to this method of communication, as were most other guides. This approach reflected a reliance on outdated information without

incorporating anything new. In contrast, the trained guides were more innovative and used different techniques to engage tourists. They set up WeChat groups for tourists, facilitating easy communication for questions, itinerary consultations, or directions. These groups might be disbanded after the trip, but sometimes they were maintained to foster good relationships, potentially turning members into repeat guests, or encouraging them to recommend the experience to friends. One trained guide made a point to store useful photos on his phone. When on-site, if clouds or mist obscured the mountain, he could show tourists photos of the site, offering a comparison of the different sceneries to engage the guests more effectively.

In terms of interpretation skills, mindfulness-trained guides employed more interactive techniques that encouraged tourists to form personal connections. They also adapted their delivery to suit the group's specific interests and knowledge levels, applying mindfulness principles such as varying key features of the experience, use of stories, and encouraging guest engagement with places being visited. However, untrained guides tended to offer more surface-level interpretations and mostly adhered to a predetermined script, which can limit the depth of the tourist experience.

Storytelling was identified as a primary guiding technique by tour guides and a crucial element for fostering mindfulness (Woodside & Sood, 2016). The art of crafting well-structured stories with universal themes to inspire visitors was extensively discussed in previous mindfulness training sessions. However, in actual guiding practice, all four guides shared stories about the archways, a distinctive aspect of local architectural culture designed to commemorate notable individuals, sanctioned by officials or locals through carved inscriptions. Untrained guides merely outlined the general purposes of the archways and named a few owners of them without details. In contrast, trained guide 2 narrated a compelling story about an ancient woman Mrs. Hu who, due to the strict and harsh customs of her time, was expected to remain faithful to her deceased husband and never remarry. In recognition of her virtues and contributions, the locals decided to erect an archway at the village entrance in her honour. Crafted from the finest stone, the archway featured inscriptions lauding her dedication to her husband's memory, her contributions to education, and her adherence to the era's expected traditional virtues at the entrance of the village. Although the tour did not include a visit to the archway, some tourists on the coach were deeply touched

and expressed a desire to see these remarkable archways after his interpretation. Meanwhile, some female teachers criticized it as a reflection of the oppression of Chinese women, angrily stating their refusal to visit.

Another trained guide addressed that she was inspired by discussions during previous training, and changed her mind to share personal stories could also leave a lasting impact on listeners. When asked by few tourists if he had become wealthy as a tour guide, he shared his personal struggles during the pandemic in 2023, balancing taking care for his ill father in the hospital with his guiding duties. His personal story sharing about this difficult period and its impact on him deeply moved the visitors. On the other hand, untrained guides preferred to recount the histories of political leaders or commercial celebrities who had visited Huangshan, including trivial gossip such as where they sat, or which assistant served them. They praised the special treatment these figures received, even when it inconvenienced other tourists, without considering the implications of such inequality. Some tourists were drawn to these stories, reflecting a traditional Chinese admiration for political leaders and a fascination with power. Additionally, both untrained guides enjoyed sharing fairy tale stories associated with Huangshan's unique rock formations, despite the lack of concrete evidence and the difficulty of explaining their formation from a geographical perspective.

Addressing tourism sustainability issues was another area where the mindfulness-trained guides differed to the untrained guides. Conveying this uncommon topic to normal guests was even challenging for all these tour guides. On the one hand, they had not received much professional training beforehand, although trained guides had participated in four workshop sessions.

They actively incorporated discussions on environmental impact and sustainability into their tours, educating tourists on the importance of conservation and responsible travel practices. This included more overt discussions of tourism sustainability issues on and beyond the site, conveying the sustainability knowledge and behaviour in a more flexible and novel way and integrating the Chinese theory to help tourists better recognize the issues. Combining storytelling skills with sustainability issues was challenging for the trained guides. They were keen to emphasize the importance of traditional Hui Culture in cuisine and hoped to interest

the guests. This approach aims to connect the ancient local culture with the present, encouraging tourists to promote Huizhou culture and sustainability principles after the trip. Mindfulness-trained guides were also more reflective about and innovative in how they conducted tours. This included being more responsive to tourists, using different tools to communicate with tourists, and showing greater willingness to adapt to tourists' needs.

Both the trained and untrained guides reminded guests the basic rules of not to litter and smoke in the mountains. Trained guide 1 suggested that tourists do not dispose of their instant raincoats after touring Huangshan and instead exchange them for other recyclable products at shops. However, few tourists were interested in doing so, thinking it was meaningless and a waste of time. These guides had to let it go. Trained guide two successfully integrated President Xi's "Two Mountains Theory," which aligns with tourism sustainability, into his guiding, effectively advocating for it. At the Welcome Pine Tree site, he introduced the tree protector, a National Chinese Good Man awardee, to inspire visitors to protect Huangshan's unique trees and nature. He was also skilled at connecting everyday issues with environmental protection during his interactions with tourists on the bus. "Does everyone on the bus drink the famous brand of mineral water, 'NongFu Mineral Water'?" he asked, holding a bottle in his hand. Everyone eagerly raised their hands and replied, "Definitely, of course, it's so famous." He then asked, "Do you know the origin of this water?" "No," "Maybe here," some of the tourists replied, a bit confused. He immediately added, "That's true. I've heard it's actually from Huangshan. So, if you don't protect the river here and pollute it during your tour like this" He then added a bit of another yellow liquid to it and said, "You can imagine what kind of water you would end up drinking later, turning brown, right?" Everybody nodded and agreed with his words. "Don't worry, that is tea, I can still drink it. I wish everyone could remain this sustainable travelling, or your sons or grandsons may not enjoy the same high quality water later." Everyone heard and laughed.

Trained guide 2 complained the lack of regulations and penalties for environmental pollution and noted that inconsistent hotel policies in the mountains regarding disposable slippers contributed to pollution due to high tourist demand. She expressed that she was inspired by effective environmental protection measures learned in the previous online training session, after the training in her tours, she asked her guests to bring their personal

toiletries to protect Huangshan. She believed guides, who interact directly with tourists, should play a mediating role in educating guests rather than indulging or spoiling them. However, these trained guides still lacked further training on addressing this systemic sustainability knowledge and felt frustrated by ineffective regulations and inadequate facilities.

Untrained guides talked less about sustainability in terms of the environment, economy, and society. Both of the untrained guides were observed to overlook the behaviours of residents polluting the water and tourists climbing rocks for photos, as these were considered normal in that environment. Instead, they enthusiastically promoted local products, such as several types of tea and local bakery items, both on the coach and onsite, to encourage purchases for commission. This was indeed a way to boost the economic sustainability of the Huangshan Region. However, Chinese tourists remained wary of shopping scams, and most expressed disinterest and scepticism (Xu et al., 2023). When the researcher saw two guests littering in the square and asked the guide how to address it, he showed indifference, saying, "We can't control them. There are all kinds of guests. Just forget it and don't worry about them." When advised not to bring instant noodles into the mountains before the trip, untrained guide 4 suggested it was a tactic to encourage tourists to buy lunch from the hotel for commission.

Overall, the observations and interviews indicated that the Mindfulness-trained tour guides differed from their untrained counterparts in storytelling, interpretation skills, and addressing tourism sustainability issues, especially in culturally and naturally rich settings like Huangshan. Mindfulness training enhanced storytelling, making it more engaging, emotionally resonant, and tailored to tourists' interests (Moscardo, 2022b). These guides integrated sensory experiences, various perspectives into their narratives, encouraging their tourists to fully immerse themselves in appreciating Huangshan's natural and cultural heritage through creating vivid and memorable experiences.

4.3.2 Tourists Survey Results

Table 4.9:

Demographics of two groups of tourists

Demographics	Untrained guides	Trained guides	Chi Square
Gender			21.459***
Male	56.5	13.5	
Female	43.5	80.8	
Prefer not to say	0	5.8	
Age			37.412***
<21	12.8	9.6	
21-35	8.5	50	
36-45	28.9	38.5	
46-55	27.7	1.9	
56-65	12.8	0	
>65	8.5	0	
Travel with others			34.937***
Single	15.2%	1.9%	
A partner	17.4%	7.7%	
Family	28.3%	5.8%	
Friends	30.4%	21.2%	
Group	8.7%	63.5%	
Education			6.693**
High school	38.3	15.4	
University	61.7	84.6	
Place of residence			2.944
In Huangshan area	2.2	3.8	
In Anhui Province	28.9%	44.2%	
In neighbouring Anhui Province	22.2%	15.4%	
Far from Anhui Province	46.7%	36.5%	

Note. *Indicates a statistically significant difference at the *** $P < 0.001$. ** $P < 0.01$ level.

Table 4.9 provides a comparison of the tourists on the untrained versus trained guides' tours. The 42 tourists led by untrained guides present a varied demographic profile with a relatively even split in gender and a wide range of ages. The most common age groups were those between 36-45 years and 46-55 years, accounting for 28.9% and 27.7% respectively. The majority travelled with friends (30.4%) or family (28.3%). In terms of educational background, a greater number have high school education (38.3%). The majority of these tourists come from areas far from Anhui Province (46.7%), with a considerable number living in Anhui Province but not in the Huangshan area (28.9%). The 57 tourists led by trained guides also

exhibited diverse characteristics, but with notable differences. Most of these tourists were female, comprising 80.8% of the demographic. Young adults, especially those in the 21-35 age group, are the most common, representing half of the tourists at 50%. Most had joined a group for this trip (63.5%). These tourists are more likely to have a university education (84.6%). Geographically, a substantial 44.2% of them come from neighboring Anhui Province, and a smaller fraction from the Huangshan area itself (3.8%).

Table 4. 10
Previous Travel Experiences

Previous travelling experiences	Untrained guides	Trained guides	Chi Square
Frequency to travel inside provinces			1.901
Once a year	19.6	11.5	
2-3 times a year	47.8	55.8	
4-6 times a year	23.9	25	
7-11 times a year	4.3	1.9	
Over 12 times	0	0	
Frequency to travel outside province			3.219
Once a year	23.3	36.5	
2-3 times a year	53.5	44.2	
4-6 times a year	16.3	17.3	
Over 12 times	7	1.9	
Travel overseas in 5 years			7.370*
No	63	86.5	
once	23.9	9.6	
More than once	13	3.8	
Travel in a guided tour			3.983
First time	29.5	17.6	
once	31.8	23.5	
2-5 times	29.5	45.1	
More than 5 times	9.1	13.7	

Note. *Indicates a statistically significant difference at the $P < 0.05$ level

There were no significant differences in the travel patterns of tourists between trained and untrained guides, with respect to travel frequency within or outside their respective provinces. For both groups, the most common travel frequency is 2-3 times a year (Table 4.10). Very few tourists in either group travelled more than 12 times within their province annually. Similarly, when traveling outside their province, a majority of tourists in both groups did so 2-3 times a year. There was no substantial difference between the two groups with respect to

previous experience with guided tours, with the majority in both having been on at least one guided tour in the past five years. There was a difference between the two groups with respect to overseas travel, with those tourists with the trained guides much less likely (31.3%) to have done so compared to 68.8% of those with the untrained guides.

Table 4.11
Huangshan Travelling Experience

Huangshan Travelling experiences	Untrained guides	Trained guides	Chi Square
Been to Huangshan before			0.115
no	72.3	69.2	
Yes	27.2	30.8	
number of previous visits			2.790
0	72.3	62.9	
1	10.6	15.4	
2-5	17	11.5	
>5	0	3.8	
Last time to visit HS			4.651
<1 year	7.7	12.5	
1-2 year	23.1	18.8	
3-5	15.4	43.8	
6-10	30.8	6.3	
>10	23.1	18.8	
How long staying in Huangshan			9.765*
1 day	4.3	0	
2-3 days	68.1	47.1	
4-7 days	25.5	52.9	
>30 days	2.1	0	

Note. *Indicates a statistically significant difference at the $P < 0.05$ level

As can be seen in Table 4.11 there was no difference between the visitors with trained versus untrained guides on factors such as whether the tourist has been to Huangshan before, the number of times they have visited the destination or when their last visit was. Most respondents have not visited before and for those who had, most had done so more than 3 years ago. The only significant difference between the two groups was in length of stay, tourists with the trained guides were more likely than those with the untrained guides to be staying for 4-7 days (52.9% vs 25.5%) compared to those with untrained guides, and those with untrained were more likely to stay 2-3 days (68.1% vs 47.1%). Overall, the two samples were

generally similar in their profiles allowing for relatively straightforward comparisons of differences between the groups in terms of the guiding practices that the tourists experience.

Differences in Perceptions of Mindful Interpretive Guiding Practices

Table 4.12 presents a comparative analysis of the mindful interpretive practices of untrained and trained tour guides on a scale from 1 (I don't agree at all) to 5 (I strongly agree). These results indicated that the mindfulness trained guides were consistently rated by the tourists as performing better on the inclusion of all mindfulness based interpretive techniques. Consistent with observation and interview data, the trained guides were more focused on engaging tourists and enhancing the learning experience, with higher mean scores in areas such as capturing interests (4.73 for trained vs. 4.14 for untrained), encouraging questions (4.71 vs. 3.91), and arousing interests (4.73 vs. 3.96), making tourists feel involved (4.67 vs. 4.00), enhancing multisensory engagement (4.83 vs. 3.98), and encouraging a deeper appreciation for the tour's uniqueness (4.79 vs. 3.98). In addition, the trained guides had significantly better mean scores for flexibility in responding to group interests (4.75 vs. 3.98) and engaging with tour members (4.83 vs. 4.04) and telling interesting stories (4.88 vs. 4.09), emphasizing their ability to connect with tourists through compelling narratives. These factors seemed to contribute to tourist perceptions that the trained guides gave more distinctive tours (4.71 vs. 3.78) and had a greater ability to make meaningful personal connections (4.75 vs. 3.87).

Table 4.12

Evaluation of tour guides on mindfulness

Evaluation of tour guides (1= I don't agree at all to 5= I strongly agree) I feel that the guide...	Untrained guides	Trained guides	T value
Captured my interests	4.14	4.73	-3.671*
Encouraged me to search for questions	3.91	4.71	-4.568*
Aroused my interests	3.96	4.73	-4.471*
Made me learn more about Huangshan	3.98	4.69	-4.003*
Encouraged me to feel involved	4.00	4.67	-4.219*
Made me think about Huangshan	4.04	4.73	-3.392*
Told me about things I want to share with others	4.00	4.81	-4.729*
Made me want to know more about the place	4.05	4.85	-5.018*

Helped me engaged in multiple senses	3.98	4.83	-5.305*
Helped me appreciate the uniqueness of Huangshan	3.98	4.79	-4.866*
This guided tour was different to other tours I have taken	3.78	4.71	-4.806*
Tour guide was flexible in responding to the groups' interests.	3.98	4.75	-4.503*
Tour guide engaged with the tour members	4.04	4.83	-4.553*
The tour guide told some interesting stories.	4.09	4.88	-5.489*
The tour guide helped me make the connection between Mt. Huangshan and my life and interests.	3.87	4.75	-4.993*

Note. *Indicates a statistically significant difference at the $P < 0.05$ level

Differences in Satisfaction and Perceptions of Guide Performance

As would be expected the greater inclusion of mindfulness based interpretive practices appeared to contribute to higher tourist satisfaction with their tour experiences (see Table 4.13). Tourists with trained guides reported a significantly higher mean satisfaction score (4.54) with their overall experience at Huangshan Mountain compared to those with untrained guides (4.09). This pattern was consistent for overall satisfaction with the tour (4.50 for trained guides to 4.15 for untrained) and overall satisfaction with the guide (4.83 to 4.32). The implications of these findings are important as they suggest that the presence of a trained guide significantly enhances not just the general experience of the tour, but also specific elements of satisfaction with both the tour and the guide. These results underscore the importance of investing in quality training for tour guides, as this appears to be linked to higher satisfaction levels among tourists.

Table 4.13

Tourists' overall satisfaction on Mt. Huangshan and tour

Satisfaction (1=extremely dissatisfied to 5= extremely satisfied)	Untrained	Trained	t-value
Overall experience at Mt Huangshan	4.09	4.54	-2.385*
Overall satisfaction with tour	4.15	4.50	-2.248*
Overall satisfaction with guide	4.32	4.83	-3.599*

Note. *indicates a statistically significant difference at the $P < 0.05$ level

These differences were explored in more detail through two open-ended questions

seeking the two most impressive things about your guide and what two things could the guide have improved to make your tour better. Table 4.14 provides a summary of the main answers to these questions for the two groups of guides. The responses to these two open-ended questions were coding based on keywords in the comments and the table reports on simple frequencies of these codes. In terms of professional guiding, the responses showed equal frequencies for general guiding skills, communication abilities, knowledge, safety awareness, and enriching the tourist experience. As for the key attitudes of guides, responses indicated the same frequency of friendliness, patience, attentiveness, and passion towards guests. These service requirements have been intensively trained and instilled through official guiding training programs (Huang & Weiler, 2010; Luo et al., 2021).

Table 4.14

Two Most Impressive and Two Things to Improve in Tour Guide Performance

What were the two most impressive things about your guide?	Trained	Untrained
Good Service (not purchasing goods)	26	12
Professional interpretation (storytelling)	23	11
Professionalism in guiding (guiding skills, communication, knowledgeable, safety awareness)	14	14
Attitude to guests (friendly, patient, attentive, passionate)	12	13
General comments (praise, improvements on guides and attractions)	9	13
Concerned with sustainable tourism and ethical behaviour	7	2
What two things could the guide have improved to make your tour today better?	Trained	Untrained
General positive comments	24	12
Itinerary improvements	5	5
Facilities improvement (catering, transportation, accommodation)	12	9
Personal guiding improvement	8	13

Note. Numbers are number of open-ended comments made

The distinction between the two types of guides was apparent in the areas of customer service and professionalism. Trained guides were more likely to be described as providing

better service, partly because they did not overly promote shopping for local products—a practice that has been part of an unethical scam operated by some Chinese guides for a long time, which mass tourists have criticized, casting a negative image on Chinese guides (Li et al., 2020). While overall tourists did not emphasize sustainability as a theme, the trained guides are generally more attuned to the principles of sustainable tourism and ethical conduct and so this was reported more often as a positive feature of trained guides' performance. Another significant area where trained guides excelled was in their storytelling ability. In the case of suggested improvements, the emphasis was frequently placed on tourism facilities in attractions and hotels.

Differences in Perceptions of Huangshan Mountain

The next step in the analysis was to examine differences in visitor perceptions of the Mt Huangshan environment and for this, visitors were asked to rate the importance of different features of the setting (see Table 4.15), and open-ended questions about the most impressive features of Mt Huangshan (see Table 4.18). Table 4.17 provides an analysis of how different features of Huangshan are valued by tourists based on the guidance they receive from either trained or untrained guides. The features considered include strange pine trees, absurd stones, sea of clouds, hot spring, diverse flora and fauna, unique Hui architecture, rich history of arts, various stores, and local customs and tradition. Tourists' ratings of these features' importance are measured on a scale from 1 (not at all important) to 5 (extremely important). The data reveals that tourists guided by trained professionals consistently rate the importance of each feature higher than those guided by untrained individuals. For example, the importance of strange pine trees is rated at 3.87 by tourists with untrained guides but rises to 4.71 with trained guides. This trend is consistent across all features. These statistically significant differences indicate that trained guides were more effective in highlighting and enhancing the appreciation of Huangshan's unique features.

Table 4.15

Perceptions of Importance of features that make Huangshan a special place to visit

Features	Untrained	Trained	T value
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(1= not at all important to 5= extremely important)	guides	guides	
Strange pine trees	3.87	4.71	-4.521*
Absurd Stones	3.91	4.65	-3.901*
Sea of clouds	3.77	4.63	-4.760*
Hot spring	3.25	4.45	-5.771*
Diverse flora and fauna	3.60	4.54	-5.395*
Unique Hui Architecture	3.74	4.60	-4.432*
Rich history of arts	3.67	4.56	-4.952*
Various Stories	3.74	4.63	-5.391*
Local customs and tradition	3.87	4.69	-5.046*

Note. *Indicates a statistically significant difference at the $P < 0.05$ level

Table 4.16 provides a summary of the frequency of key words and phrases provided by tourists in response to the open-ended question. Both groups of tourists, regardless of whether they were guided by trained or untrained guides, mentioned key attractions like "Beautiful scenery," "mountain," and "ancient village." This indicates a shared appreciation for the fundamental and most striking features of Huangshan Mountain. Unique features such as "Pine Trees," "Rocks," and "Water/River" were also mentioned by both groups, suggesting a general interest in the unique natural features of Huangshan, perhaps reflecting a common attraction to the natural beauty and specific characteristics that make Huangshan a notable destination. In addition to these similar responses there were also differences in the responses of the two groups. While both groups appreciated the key features of Huangshan, tourists with trained guides seemed to have a more detailed and in-depth understanding, as reflected in the higher frequency of mentions in categories like "Nature/environment" and "Rocks". The lower frequency of complaints and higher overall mentions of positive aspects with trained guides suggest that their professionalism and knowledge significantly enhance tourist satisfaction. The difference in the frequency of mentions of "culture" suggests a variation in the emphasis or depth of information provided about cultural aspects, possibly reflecting different guiding styles.

Table 4.16

Keywords from Questions on Most Impressive Features of Mt Huangshan

Tourist Mountain	General impress on Huangshan	Trained guides Frequencies	Untrained guides Frequencies
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Beautiful scenery	22	10
Great mountain (pine tree, rocks, sea clouds)	20	11
Profound Culture (village)	18	21
Natural environment (water)	10	3
Tour guides	8	4
Complains	3	11

While tourists' experiences with untrained and trained guides at Huangshan show notable differences in their perception of the setting, primarily in the depth of appreciation and satisfaction, there are underlying similarities that reflect a universal interest in the mountain's natural beauty and cultural heritage. Both groups, irrespective of guide training, demonstrate an appreciation for the main attractions and express interest in the unique features of Huangshan. However, trained guides seem to provide a more comprehensive, detailed, and satisfying experience, likely due to better knowledge, communication skills, and professionalism. These findings underscore the importance of previous guide training in enhancing tourist experiences, while also highlighting the intrinsic appeal of Huangshan's natural and cultural attractions that resonate with all visitors.

Differences in Awareness of Sustainability Messages and Actions

Differences between the tourists who visited Mt Huangshan with either a trained and untrained guide were also explored for different aspects of sustainability messaging and information on sustainable action, both onsite and beyond. Table 4.19 presents the analysis of the percentage of tourists in each group reporting that they remember the guide telling them about appropriate on-site sustainable behaviours. All the tourists with a trained guide reported being told about sustainable on-site behaviours, while only 90.7% of those with an untrained guide made a similar report. This was a statistically significant difference at $p < 0.05$ level (Chi Square = 0.025). The information in Table 4.17 indicated that while tourists with trained guides were generally more likely to report being told all the sustainable onsite actions, the largest differences were not wasting water and food resources and not smoking in designated areas. In the former case those with trained guides reported higher awareness of wastage. In the latter case, the sample's predominance of younger women who did not smoke

meant that the trained guides had less reason to discuss this particular action.

Table 4.17

Reports of Guide Communication of Sustainable On-site Behaviours

Behaviour	Untrained guides	Trained guides	Chi Square
Don't disturb or feed wild monkeys	82.1	90.4	1.352
Don't litter	97.4	100	1.348
Don't scribble or draw on rocks	71.8	75	0.118
Don't collect plants as specimens or souvenirs	79.5	84.6	0.404
Don't waste water and food resources	79.5	92.3	3.200*
Don't smoke on non-designated areas	92.3	75.0	4.607*
Don't climb dangerous terrains	69.2	78.8	1.091
Don't dump instant noodle soup water indiscriminately to pollute pine trees	74.4	75	0.005

Note. *indicates a statistically significant difference at the $P < 0.05$ level

Table 4.18 compares the reports of whether the guide suggested make positive contributions to Huangshan by the tourists in the two different groups. A significantly higher percentage of tourists with trained guides (98.1%) reported being informed about how they could make positive contributions to the destination, compared to those with untrained guides (81.8%) (Chi Square =7.415). For those who indicated that their guide suggested behaviours, those with trained guides were more likely than those with untrained guides to suggest the following aspects, "Respect the customs and traditions" (94.1% versus 81.1%) and a higher adherence to "staying close to the group" (98% vs. 64.9%), "avoiding the use of plastic bags" (62.7% vs. 40.5%) and purchasing local products (82.4% vs. 59.5%). Additionally, these tourists rated the "value of tourism services" much higher (84.3% vs. 51.4%), indicating trained guides not only enhance the tour experience but also positively influence tourists' environmental and local economic support behaviours. This underscores the role of trained guides in informing the tourists of responsible tourism practices.

Table 4.18*Reports of Guide Communication on How to Make Positive Contributions to Huangshan*

Contribution	Untrained guides	Trained guides	Chi Square
Respect the customs and traditions	81.1	94.1	3.618*
Accept flexible travel arrangements	86.5	90.2	0.293
Stay close to the group	64.9	98	17.640*
Avoid the use of plastic bags	40.5	62.7	4.249*
Purchase local products	59.5	82.4	5.666*
Value of tourism service	51.4	84.3	11.192*

Note. *indicates a statistically significant difference at the $P < 0.05$ level

Finally, Table 4.19 reports responses to questions about the guide communicating about sustainability beyond the site. Overall, 98.1 % of tourists with a trained guide reported that they had been given information about sustainable behaviour in daily life while 64.2% of those with an untrained guide made a similar report. The table shows that the trained tour guides significantly influence tourists' intended sustainable behaviours across several key areas, notably in their commitment to environmental sustainability and cultural appreciation. In terms of adopting environmentally friendly practices, tourists with trained guides show a marked inclination. For instance, 78.4% of tourists with trained guides planned to take back good environmental habits from their travel experience at this site, compared to 55.6% with untrained guides. Similarly, the use of reusable objects is preferred by 72.5% of tourists with trained guides, significantly higher than the 44.4% with untrained guides. The results highlight the effectiveness of trained guides in promoting environmental consciousness through eco-friendly transportation, with 73.1% adoption among those guided by trained professionals, a stark contrast to the 33.3% with untrained guides. Tourists guided by trained professionals are more inclined (80.4%) to choose local tourism and 68.6% to consider destination capacity, indicating that trained guides effectively communicate the importance of responsible tourism and its impact on local communities and environments. Moreover, a deeper level of engagement and respect for the cultures they visit is evident among tourists with trained guides, with 80.4% reported that they would research the culture of their destinations in future. These intentions align with the trained guides' role in fostering immersive and respectful tourism experiences. Support for ecological and sustainable development initiatives was also notably higher among tourists who had tours with trained guides, with 68.6%

showing support, illustrating the broad impact of trained guides on promoting sustainability and responsible travel behaviours.

Table 4.19

Guide Communicated About Sustainable Behaviour in Daily Life

Sustainable Behaviour in daily life	Untrained guides	Trained guides	Chi Square
Recommend Mt Huangshan to friends and acquaintances	85.2	94.1	1.724
Use social media to promote the destination	74.1	90.2	3.525
Bring back good environmental habits	55.6	78.4	4.443*
Use reusable objects	44.4	72.5	5.970*
Eco friendly transportation	33.3	73.1	12.499*
Choose local tourism	40.7	80.4	12.4901*
Consider the capacity of destination	29.6	68.6	10.854*
Research the culture of destination	37	80.4	14.661*
Support Ecological and sustainable development initiatives in my local community	33.3	68.6	8.943*

Note. *indicates a statistically significant difference at the $P < 0.05$ level

Summary of Results

In summary, the detailed mean scores offer a clear picture of the advantages of trained tour guides over untrained ones across various dimensions of the tour experience. By enhancing engagement and learning, offering personalized and immersive tours, and excelling in professionalism and storytelling, trained guides significantly improved the tour experience. This improvement aligns with observations of more mindful behaviors and interactions between the trained guides and their guests. They enriched the tour by sharing knowledge of the sustainability of Huangshan region, using their training to engage tourists' senses, from savoring local cuisine to appreciating nature's beauty through imaginative viewpoints and listening to the wind in the trees. They also guided tourists towards sustainable behaviors, offering personal tips to minimize pollution in the mountains during tours. In terms of interpretation skills, these guides crafted more structured stories about historical scholars and businessmen to captivate their audience. Additionally, they shared their personal narratives and tales of political figures with a hint of irony, further engaging their guests. Throughout these experiences, trained guides encouraged deeper interactions with guests.

The results of this study advocate for the importance of training programs for the guides, as they can not only improve the skills of them but also directly impact tourist satisfaction and the overall success of the tour. The questionnaires analysis underscores the key role of trained tour guides in shaping tourists' perceptions and appreciation of Huangshan region in both culture and nature. Trained guides, through their knowledge and communication skills, significantly elevate the importance tourists place on various aspects of Huangshan, thereby enriching their overall experience. This not only enhances the value of the visit for the tourists but also promotes a deeper understanding and appreciation of the site's natural beauty, cultural heritage, and historical significance. Such insights are crucial for developing effective strategies in tourism management, particularly in promoting sustainable tourism practices that emphasize the preservation and appreciation of unique cultural and natural heritage sites of Huangshan.

This enhanced summary, infused with specific data, reflects the significant differences in tourists' behaviours influenced by trained versus untrained tour guides, emphasizing the crucial role of guide training in promoting sustainable and culturally respectful tourism practices.

4.4. Limitations and Conclusions

In drawing conclusions about this study, it is important to recognise some limitations or cautions that need to be exercised when interpreting the overall results. Firstly, while comprehensive in field work and using mixed method, the study was based on a single setting and focused on four groups of tourists in that one setting. The choice to include detailed participant observation of the guides at work meant that collecting data from a larger set of tours was not feasible in one study. Additionally, this field work was only conducted in the Huangshan Scenic Area. Thus, it would be valuable to repeat this research both in other settings but also with more groups of tourists and a larger sample of both trained and untrained guides. Finally, this study, like many that attempt to examine the effectiveness of interpretation on sustainability action, was limited to reports of intended action, which routinely are much higher than actual action. Studies that followed up the tourists and measured actual changes in behaviours would also be a valuable extension of this research.

This study emerges as one of the few to integrate Western sustainability and guiding principles within Chinese contexts, while also incorporating social cognitive mindfulness theory into practical social actions. It reveals that while the application of a mindfulness model in tourism validates its effectiveness, the mindfulness of tour guides, though necessary, is not solely sufficient for influencing tourists' learning and behavioural change (Moscardo, 1999). The untrained guides who volunteered for this study possessed a high level of mindfulness still had left a positive impression on tourists, supporting the value overall value of mindful tour guides. In addition, the results indicated that a mindfulness-based sustainability training program can equip trained guides with guiding practices that more profoundly influence tourists' experiences and perceptions.

This finding underscores the multifaceted impact of mindfulness in the realm of tourism, particularly in enhancing guide-tourist interactions and promoting sustainable practices (Eck et al., 2023). It suggests that while guides' general mindfulness can contribute positively to tourist experiences, structured training programs specifically tailored to change practice and to incorporate sustainability in interpretive practice can further refine and amplify these benefits, leading to more meaningful and impactful tourist experiences.

This field work has demonstrated the significant impact of trained tour guides on enhancing tourists' experiences, particularly in promoting sustainable behaviours and increasing cultural and environmental appreciation. The qualitative analysis between trained and untrained guides and their interaction with tourists reveals significant differences, particularly in the context of Huangshan. Trained guides, having undergone mindfulness training, offer a more engaging, emotionally resonant storytelling experience of local businessmen and tour guides themselves that attracted tourists' interests (Hughes & Moscardo, 2023). They employ interactive techniques and multisensory methods that not only enhance the depth of the tourist experience but also encourage personal connections and purchasing more local products. Mindfulness-trained guides excel in interpreting the rich cultural and natural heritage of Huangshan, adapting their delivery to suit the group's specific interests and knowledge levels. Their approach allows for a more flexible and novel conveyance of sustainability knowledge, integrating Chinese theory to make the concepts more relatable to tourists. This mindful incorporation of discussions on environmental impact

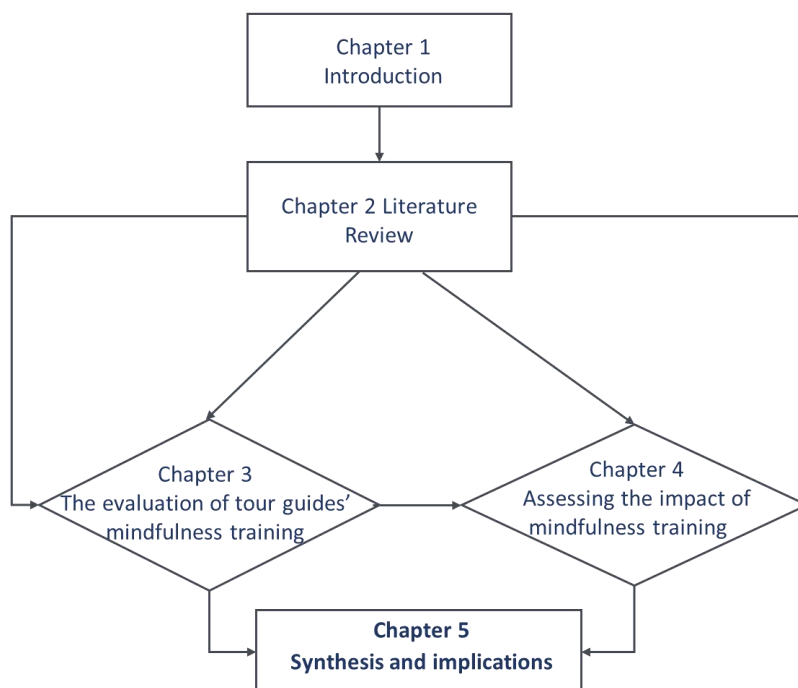
and sustainability into their tours educates tourists on the importance of conservation and responsible travel practices, aligned with other mindfulness training program for interpreters (Dussler & Deringer, 2020).

Moreover, these guides are more reflective and innovative in how they conduct tours, using different tools to communicate with tourists and showing a willingness to adapt to tourists' needs. They are also more inclined to critically address the shortcomings of local facilities and the challenges posed by fluctuating regulations, which are significant factors influencing tourists' sustainable behaviours. They apply mindfulness principles to the overall structure and management of the tour, encouraging guests to find personal connections to the interpretation topics covered (Packer et al., 2022). This contrasts with untrained guides who tend to offer more surface-level interpretations and may stick to a predetermined script, limiting the depth of the tourist experience.

The quantitative analysis presented clear disparities in behaviour and satisfaction levels between tourists who were accompanied by trained guides versus those who were not, underscoring the superior ability of trained guides to enhance tourists' understanding and appreciation of the destination's cultural and natural heritage. This research not only highlights the pivotal role trained guides play in promoting sustainable tourism practices but also adds a valuable dimension to the literature on sustainable tourism from the perspective of tour guiding (Güzel et al., 2020). It demonstrates how effectively trained guides can educate tourists about sustainability issues and even a bit of human nature (Liljeblad, 2020; Pu et al., 2022), thereby encouraging responsible tourism practices both during their visits and in their subsequent actions .

In conclusion, this study reaffirms the critical importance of integrating mindfulness and sustainability theory as well as interpretation techniques into tour guide training programs. By doing so, it can significantly impact tourists' experiences, fostering a more sustainable and responsible approach to tourism that respects and preserves the cultural and natural heritage of destinations like Huangshan for future generations. This research contributes to a broader understanding of how training guides in mindfulness and sustainability, can be a key strategy for achieving the goals of sustainable tourism globally, making a compelling case for the replication of such training programs in similar contexts worldwide.

Chapter 5 Synthesis and implications



This final chapter aims to summarise and synthesize the thesis in a holistic manner. This chapter is organized as follows. Section 5.1 provides a general review of the thesis, reiterating the overall research aim, the three research questions and how these questions were addressed in the two studies. The key findings of the two studies are then summarized in Section 5.2. Section 5.3 synthesises the two studies in this thesis and offers a comprehensive overview of the processes by which Chinese tour guides took mindfulness-based sustainability training and changed their guiding practice to influence tourists in order to enhance sustainability awareness and improve tourist satisfaction. Based on the synthesis, Section 5.4 highlights the research contributions of this thesis and the potential practical implications for tour guides and other relevant stakeholders in China. Then in Section 5.5, the chapter describes the limitations of this thesis and future research opportunities, finishing with some concluding comments provided in Section 5.6.

5.1 Overview of the thesis

With the rapid growth of the Chinese tourism industry both internationally and domestically, criticism of "uncivilized" and "unethical" practices has increased due to the

potential negative impacts of mass tourism on local cultures, economies, and environments (Husted & Allen, 2008; Lin et al., 2022; Tolkach et al., 2017). Although these issues are cross-national, specific nationalities, particularly Chinese tourists, have been singled out as more troublesome (Grout, 2016). The Chinese government has implemented several measures to address these issues, such as equipping thousands of cameras to monitor bad behavior and promulgating official initiatives like the "Tourism Etiquette Rules for Chinese Citizens Traveling at Home and Abroad." These rules urge Chinese tourists not to force locals to pose for photos, leave footprints on toilet seats, cut lines, pick their noses, or take more than they can eat at buffet tables (Liu et al., 2020). However, these methods have not been effective in practice due to high enforcement expenditure and low punishment costs.

Tourism sustainability refers to the concept of ensuring that tourism activities are conducted in a manner that preserves the environment, supports local communities, respects cultural heritage, and meets the needs of present and future generations. It encompasses various dimensions, including environmental, economic, social, and cultural sustainability (UNWTO, 2005). Many authors have proposed that one practical strategy to enhance the sustainability of destinations is through supporting tourists to be more open to sustainable behaviour, attitudes, and values (Cajiao et al., 2022; Chang et al., 2020; Landon et al., 2018; Passafaro, 2019; Paul & Roy, 2023; Sharmin et al., 2020).

From a psychological cognitive perspective, environmental knowledge, attitudes, concerns, and beliefs constitute one's cognition, they have been shown to significantly affect pro-environmental behaviours in tourism (Chakraborty et al., 2024; Su et al., 2020; Wang et al., 2024). This suggests that understanding tourists' causes and choices, as well as correcting their perceptions and awareness of inappropriate action, is crucial to manage their undesirable behaviours. Researchers have attempted to influence unsustainable behaviours in variety of locations by providing interpretation as an external professional force in destinations (Ballantyne, Packer, & Hughes, 2009; Moscardo, 2014, 2017; Walker & Moscardo, 2014; Hall, Gössling, & Scott, 2015). Tilden (1967) argued that interpretation can contribute to heritage protection and broader sustainable tourism goals by facilitating knowledge restructuring and influencing visitors' behavioural intentions (Lee et al., 2021; Packer et al., 2022). Tour guides are a key personal interpretation method as well as a longstanding profession. Over time there

has been a change in the responsibilities and expectations of tourist guides shifting from initial roles as path leaders to personal experience supporters and heritage interpreters. Despite these changes tourist guides are still expected to guide their guests both physically and mentally. In contemporary tourism they can shape tourist experiences and behaviours through their skills and roles as cultural mediators, economic advocates, and educators. There is evidence that tour guides can improve tourists' understanding and appreciation of communities, cultures, and environments, monitor on-site visitor behaviours, and foster pro-conservation attitudes and behaviours (Francis et al., 2019; Rafique, 2020; Weiler & Ham, 2002).

It could be argued that many unsustainable tourists' behaviours emerge from pre-existing habits borrowed from other situations, conditions that encourage mindlessness. It can be challenging to abandon these even in new settings and tour guides may be a resource to assist through reminding tourists of the different and often invisible rules and social norms at the destination. However, guides must first break out of their own routine settings and be mindful of their interactions and then use effective communication techniques to promote environmental awareness. Arguable this is a major challenge for tour guiding practice and many tour guides lack understanding of sustainable tourism concepts, particularly in developing nations with inadequate training (Wang et al., 2007; Hidalgo, 2019; Weiler & Ham, 2002). They may fear that promoting conservation or supervising visitor behavior could offend guests and jeopardize their tours' economic viability (Weiler & Black, 2015).

In China, the approach of tour guides to managing tourist behaviours to enhance onsite sustainability presents both opportunities and challenges. On the one hand, China has the world's largest group of tour guides, around 600,000, with a comprehensive entrance and training system (Luo et al., 2021). However, the education system is heavily influenced by the country's political context and often focuses on basic guiding knowledge and tourism regulations rather than sustainable tourism (Huang et al., 2010; Kong, 2012). Most Chinese guides still use traditional methods learned from textbooks and training courses which do not encourage them to adapt and be flexible to the changing expectations and demands made of them.

The present research, reported in the previous chapters, aimed to encourage tour guides

to see themselves not just as site information communicators but as agents and practitioners of sustainable tourism. The goal was to help Chinese tour guides to promote natural and cultural preservation awareness and to reduce unsustainable tourist behaviour. To achieve this, the research adopted socio-cognitive mindfulness theory with the concept of tourism sustainability to train a cohort of Chinese tour guides in a systematic way.

Mindfulness, a social cognitive psychology theory created by Ellen Langer, has wide applications in education, business, and health. Langer explains that individuals can be in one of two cognitive states: mindlessness or mindfulness. Mindlessness is characterized by shallow, fast, automatic, heuristic thinking, while mindfulness involves deep, slow, deliberate, systematic thinking (Langer 1989; Langer, 2000; Hulsheger et al., 2013). Individuals are often unaware of their mindless state because they are too familiar with what they frequently encounter or are unaware of novel situations, deem available information irrelevant or unimportant, and rely on previous knowledge to navigate new situations (Carson & Langer, 2006; Lieberman, 1997). For tourists, this can mean ignoring the differences between their home and their travel destination, leading to mindless and sometimes unsustainable behaviour. There is evidence that understanding and applying mindfulness in tourism contexts can improve learning and satisfaction by encouraging new perspectives and distinguishing more categories (Bishop et al., 2004; Langer et al., 2010). In tourism, a mindfulness model that includes situational and personal factors has been shown to effectively encourage tourists to be more sensitive to their environment, open to new information, and more satisfied with and understanding of external influences (Dussler & Deringer, 2020; Frauman & Norman, 2004; Noor et al., 2014; Moscardo, 1996; Moscardo, 2018).

Based on this analysis of the Chinese tour guiding system and a review of the relevant literature this thesis sought to examine how training for Chinese tour guides could be improved to support them in assisting tourists to develop more sustainable actions. This aim was addressed through the following three research questions.

Question 1: To what extent does a tour guide training program implementing mindfulness techniques and sustainability education encourage tour guides to become more mindful and to change their interpretive practices to focus more on sustainability at and beyond the visited place?

Question 2: How do interactions with tourists by tour guides who have had mindfulness-based sustainability training differ in their guiding practice from those who have not been trained?

Question 3: If and how do mindfulness-trained tour guides encourage more sustainable behaviours in tourists?

The first research question was addressed through a four-week online mindfulness training program based on the framework of mindfulness theory in tourism and socio-cognitive mindfulness theory (Moscardo, 1999; Langer, 1989). This training incorporated key factors like storytelling skills, multisensory experiences, increased interaction with tourists, personal relevance, and knowledge of SDG goals and sustainability elements. Twenty-seven tour guides from Anhui Province, China, completed the workshops. Pre- and post-training evaluations revealed increased mindfulness levels and a better understanding of tourism sustainability.

The second and third research questions were addressed by comparing two trained guides who volunteered after completing the training sessions with two untrained guides from the Huangshan Region. The mixed-method approach involved data collection from both guides and tourists, observing guiding behaviors, and evaluating how mindfulness techniques and sustainability knowledge were conveyed.

The action research methodology, commonly adopted in business research (Lewin, 1947; Coghlan & Brannick, 2014; Goebel et al., 2020), was used with three steps: planning (Study 1 of tour guide training), action (both Study 1 and Study 2 of practical training and guiding work), and result revelation. This methodology employed a mixed method of qualitative answers and quantitative scale evaluations, distinct from previous one-way tour guide research approaches (Carneiro, 2017; Kalyoncu & Yuksek, 2017; Li et al., 2022).

5.2 Summary of the findings

This thesis research addressed the first research question by integrating a tailored mindfulness model into tour guide training, using multisensory communication and storytelling aiming to enhance guides' ability to influence tourists' sustainable behaviours. This

appears to be the first-time researchers have to applied mindfulness theory in Chinese tour guide training, turning the attention of researchers from mindfulness in tourists to mindfulness in other tourism stakeholders. Furthermore, the research explored how the West rooted tourism sustainability concept could be comprehended and integrated with Chinese practical contexts to be included in tour guide training. Sustainability was widely adopted in the Western world from 1970s, and then later transferred to China and integrated into Chinese political philosophies like "scientific development", "harmonious society", "ecological civilization" and "high-quality development", although it remained mostly embedded in the high-level policy documents rather than practice (Wang & Zhang, 2020; Xu et al., 2014; Xu & Sofield, 2013). This meant that frontline Chinese tourism staff, including tour guides have not have opportunities to be introduced to the concepts such as sustainable tourism or tourism sustainability. To address this gap the first training component of this thesis research focussed on a variety of sustainability values and meanings from environmental conservation to cultural preservation and economic viability and attempted to make links and connections between these adapted sustainability concepts and their own guiding work. Chapter three reports on the details of this training program and the evaluation of its effectiveness.

The entire process lasted around two months during the challenging COVID period in China, involving homework submissions, offline self-exercises, and online interaction. As a result, many of the 27 participants reported a shift from standard guiding techniques to a fresh method that integrated innovative thinking and attentive contextual awareness. They acknowledged that regular interpretation skills and content could not meet the demands of all types of tourists and updated their traditional skills, especially storytelling, after playing the storytelling dice game. Some trained guides discovered they could tell stories about locals not just from the perspective of great people but also ordinary individuals or even themselves. Applying multisensory techniques in guiding work was considered key to arousing the interests of tour guides themselves through touching, tasting, and smelling, after simulating some famous mindfulness experiments (Bercovitz et al., 2017; Langer, 1989). This transformation indicates the effectiveness of the mindfulness training program in elevating the trainees' understanding of interpretation skills, consistent with the intended results from other interpreter training programs (Dussler & Deringer, 2020).

This training employed quantitative methods to evaluate two mindfulness scales before and after the training, concluding that the guides showed generally higher scores of mindfulness post-training. Through triangulation of the analysis of qualitative data from their answers in the pre- and post-questionnaires, trainees expressed that the training could further engage them with tourists, emphasizing a more meaningful and immersive experience. Moreover, their narratives on understanding mindfulness showed that Western mindfulness concepts were well applied among Chinese tourism stakeholders, rather than its traditional intervention among families and teachers in other fields (Eck et al., 2023; Lu et al., 2022; Shen, 2022). Mindfulness theory was used as a catalyst in this training program to prompt guides to reconsider previous guiding methods and apply different perspectives. Consequently, in the comments provided by the 27 respondents, most guides showed a comprehensive understanding of mindfulness concepts and expressed intentions to implement various interpretation skills learned from the tourism mindfulness model, such as multisensory engagement, variety, interaction, and fostering tourists' interests.

This training experiment further combined mindfulness theory with sustainability knowledge, integrating the key elements of novelty and flexibility in conveying sustainability concepts in tourism to guides. Additionally, tour guides commented that the sustainability concepts were nicely explained and aligned with famous Chinese thoughts and theories, such as "lucid waters and lush mountains are invaluable assets," making it easier for them to understand and accept. The program led to heightened awareness among guides about tourists' behaviours impacting holistic tourism sustainability in three aspects: environmentally, socially, and economically. Some guides developed a nuanced understanding of various social issues related to sustainability, moving beyond mere complaints about tourists' behaviours to considering causes from different perspectives, such as poor official tourism regulations. For example, the caution of tourists purchasing local products to promote the local economy was also attributed to long-standing scams in this field, while no official policies had yet resolved the problem (Xu et al., 2023).

Overall, the results indicated that the training workshops successfully fostered greater awareness and understanding of mindfulness among the participating tour guides. They equipped Chinese tour guides with mindfulness techniques and sustainability concepts,

significantly enhancing their skills in interpretation, storytelling, and sustainability awareness. Thus, the first study answered the first research question in the affirmative demonstrating that a tour guide training program implementing mindfulness techniques and sustainability education can encourage tour guides to become more mindful and to change their interpretive practices to focus more on sustainability at and beyond the visited place.

In the second study, field research comparing voluntarily participating mindfulness-based sustainability trained guides with untrained guides from the Huangshan Region was conducted. The researcher used a mixed-method approach to collect data from both guides and tourists, participating in their tours to observe guiding behaviours and tourist reactions. This evaluation aimed to determine how guides interacted with tourists, whether mindfulness training techniques were employed, and how sustainability knowledge was conveyed. Chapter 4 reports on this study. Tourists in each guide group filled out questionnaires to provide feedback on the guide's behaviour and assess their understanding of local tourism sustainability.

The fieldwork in study two underscores the crucial role of training programs for tour guides in practical guiding. The mindfulness training not only enhances the guides' skills but also impacts tourist satisfaction and the overall success of the tour, shaping tourists' perceptions and appreciation of the Huangshan region's culture and nature. At the beginning of the tour, all four guides showed high mindfulness levels over 56, as evaluated by the Langer's mindfulness scale (Pirson et al., 2012), regardless of whether they were trained or untrained, as volunteers had actively presented their expectations of the research through the evaluation. However, the essence of this fieldwork was to determine how the trained guides could utilize mindfulness as novel techniques to change their practices in guiding and then influence tourists.

This study found that trained guides could integrate Western sustainability principles with guiding techniques within Chinese contexts, applying the flexibility and novelty in interpreting familiar objects and were more open to tourists' questions. Their actions and interactions significantly influenced tourists' experiences and perceptions, promoting sustainable behaviours and fostering cultural and environmental appreciation. From the analysis of observation and interview data, the two trained guides more effectively shared knowledge about the sustainability of the Huangshan region than untrained guides. Both of them engaged

tourists' senses by having them taste traditional Huangshan cuisine during dining and guided them towards sustainable behaviours, including offering tips to minimize pollution learned from the previous training but with their own skills. For example, one trained guide strongly suggested her tourists bring their own sandals when staying in the hotel atop the mountains. The other trained guide shared structured family stories of past businessmen in local villages that captivated their audience with engaged questions and interactions, whereas untrained guides merely gave a short general introduction to the local businessmen. This finding expanded research on interpretation and its functions in promoting social and cultural understanding for tourists (Ballantyne et al., 2021; Hu & Wall, 2012; Wu et al., 2021).

According to survey responses, tourists in the trained guide group scored higher overall satisfaction with the tour and the tour guide's performance. These results are consistent with findings on the importance of tour guide training (Látková et al., 2017; Weiler, 2016). Specifically, this research further explored the detailed performance of tour guides by evaluating tourists' perspectives on capturing their interests, among other factors. From the narrative responses of tourists, it was noted that more personalized and immersive experiences were provided by the trained guides, who showcased more professionalism and higher ability in storytelling skills, mentioning more about the beautiful scenery. In contrast, there were more complaints about shopping from tourists in untrained guides' groups. While the cultural interpretation appeared consistent to that of the untrained guide group, strongly influenced by their previous official training (Luo et al., 2021), the trained guides encouraged tourists to appreciate the rocks from different positions and name them in their own flexible ways, rather than interpreting them based on fixed names. Untrained guides only asked tourists to view the surrounding scenes with regular interpretation, just describing the shapes of rocks in Huangshan as the fixed figures in fairy tales shown in the official tour guiding textbook.

Tourists in the trained tour group revealed greater awareness of the importance of features that make Huangshan a special place to visit. All the tourists with a trained guide reported being told about sustainable on-site behaviours, while only 90.7% of those with an untrained guide made a similar report. In terms of guide communication on how to make positive contributions to Huangshan and mentioning sustainable behaviour in daily life, a

significantly higher percentage of tourists with trained guides were informed compared to those with untrained guides. These results can be attributed to the specific training that elevated the guides' perception of tourism sustainability. One of them said sustainability was not only a concept on paper but essential for the sustainable development of the local destination and to themselves. They were bound together as a whole. This result reflects that specific training could be another effective approach to enhancing sustainability perceptions for locals, rather than relying on difficult methods for contributing to the sustainable development of locals' livelihoods, the tourism industry, and the destination (Lu & Zhou, 2022; Qian et al., 2017; Xu et al., 2016) .

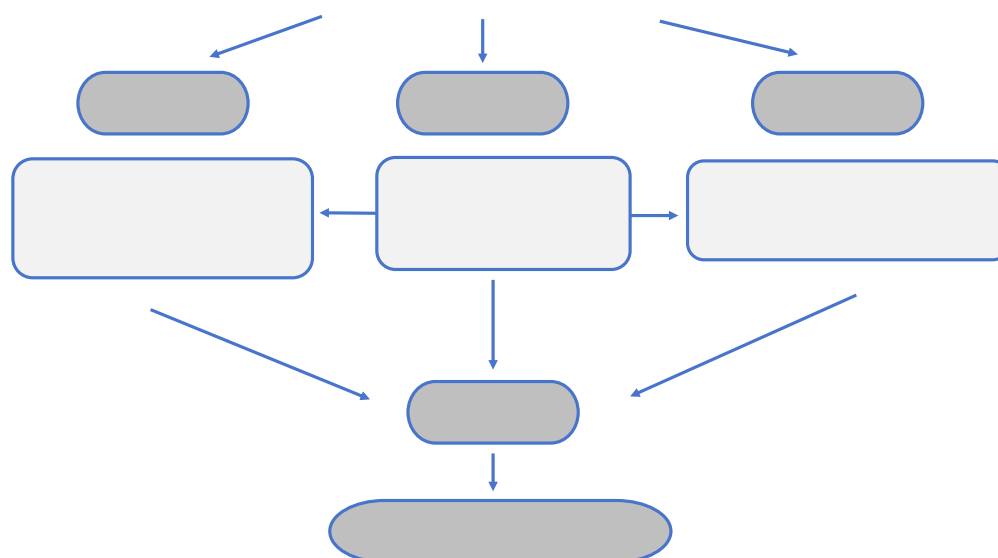
Overall, this research highlights the positive impacts of mindfulness, especially when induced using effective storytelling, and sustainability-based training on Chinese tour guides and their potential to influence tourist behaviour. This study is timely and essential for the ongoing recovery of the tourism industry post-pandemic and the increasing recognition of sustainable development practices within China's booming tourism industry.

5.3 A synthesis

The two studies in this thesis are synthesized in Figure 5.1. They build upon the previous framework (Figure 2.3) with more detailed and confirmed factors from the fieldwork. These studies are interconnected, contributing to an integrated understanding of how mindfulness tour guide training affects tourists in various aspects and achieves positive results. The journey progresses from imparting mindfulness training to tour guides to the eventual impact on tourist behaviour and satisfaction.

Figure 5.1

An integrated understanding of tour guide mindfulness training and impacts on tourists



The process begins with explaining cognitive mindfulness and its application in tourism settings. This foundational state, characterized by novelty, flexibility, openness, and creativity in cognitive psychology (Langer, 1989), enables guides to deliver storytelling and other interpretation that is both engaging and immersive, connecting tourists deeply with the sights and narratives of their travels. Most of these characteristics have been applied and tested in previous research and found to be effective in involving tourists more in travel and enhancing learning, enjoyment, and well-being (Moscardo, 2022; Woods & Moscardo, 2003). In this guide training, novelty in familiar settings, openness to tourists, and increased confidence in guiding work were achieved as the main reflections of their mindfulness. These qualities helped them stay refreshed in familiar scenic spots, be open to interactions with tourists, and maintain a more optimistic outlook on future guiding work.

In terms of guiding skills, techniques including new perspectives on interpretation, structured storytelling, and the application of various interpretation tools were mostly utilized by the trained guides. Trained guides encouraged tourists to engage multisensory with different objects and understand the key features of Huangshan Mountain from various perspectives. Especially well-structured stories about specific past and present businessmen

and scholars raised the interests of most tourists, making them more impressed by the economic and cultural values of Huangshan and regarding the destination as a genuine Chinese heritage. This verified the importance of storytelling in tourism (Howison et al., 2017; Mathisen, 2017; Moscardo, 2020). Supportive interpretation tools, such as photos, music, and even everyday items like water bottles, proved useful in enhancing tourists' appreciation of local traditional literature and the protection of upstream rivers, as demonstrated by trained guides with their onsite impromptu interpretation. Their observed impromptu behavior expanded the verification that personal interpretation outperforms non-personal interpretation, such as VR, in appreciating heritage value (Viñals et al., 2021; Weng et al., 2020). During interviews, tour guides mentioned that learning to use common items to aid interpretation was a new skill they gained from the training program.

This mindfulness-based training aimed not only to improve their knowledge and skills related to guiding practice but also to instil a mindset that encompasses an understanding of Western sustainability principles. This basic sustainability content, incorporating the three pillars as defined by the UN - social, economic, and cultural - was delivered in the training to give tour guides a comprehensive understanding that was not included in their regular Chinese training (Huang & Weiler, 2010; Kong, 2012). The goal was to embed a sense of environmental and social responsibility into the essence of tour guidance, as evidenced by the findings of study 1.

Due to mindfulness awareness, the two trained guides could better integrate sustainability with typical Chinese environmental protection theories and introduce them to tourists flexibly. This mindfulness-based sustainability understanding was then transferred into tailored travel tips communicated to tourists before the tour, such as taking their own sandals for accommodation and exchanging abandoned raincoats for souvenirs in selected shops. From the findings of study 2, trained guides were observed to remind guests more frequently about avoiding bad behavior while traveling. They fostered an invisible change in tourists' pre-existing consumption perceptions, leading to more sustainable and active choices during their travels through the learned multisensory interpretation skills. Additionally, tourists in the trained guides group developed a multisensory appreciation of the natural beauty of

Mountain Huangshan, enriching their travel experience. Many guests showed a nuanced understanding of local ancient villages, leading to a more profound appreciation and respect for cultural heritages and the natural environment. The practical dissemination of tourism sustainability knowledge by trained tour guides demonstrated their new role as "green life advocates" in contemporary Chinese tourism (Ren et al., 2023). Furthermore, the results of study 2 could help to change the stereotype of tourists to some extent regarding previous scams by Chinese tour guides through mindful fieldwork and promoting local products (Y. Li et al., 2020; Xu et al., 2023).

Finally, the findings indicate two main results for tourists, increased satisfaction and higher sustainable awareness and behaviour both onsite and in daily life. The enhanced satisfaction derives from the enriched and meaningful experiences crafted by the mindfully trained tour guides. Meanwhile, the lasting impact of these experiences goes beyond the trip itself, instilling higher sustainable awareness that tourists carry into their everyday lives, potentially leading to long-term changes in behaviour and contributing to the broader goals of sustainable tourism. Achieving this is an essential goal for Chinese tour guides, and although the methods and approaches have long been a concern in research, they have not been extensively attempted in practice (Huang et al., 2010; Ren et al., 2023). These results prove that psychological improvement of guides is effective, rather than applying other complicated interventions to prevent unsustainable behaviour.

In essence, the research emphasizes the pivotal role of mindfulness in transforming the tourism industry from within. By starting with the individual, the tour guide, the ripple effect of sustainability flows outward, reaching tourists and potentially fostering a more conscious and responsible form of local travel. It underscores the idea that true sustainability in tourism is not just about policies and regulations but also about the mindset and behaviours of those who operate within and experience the industry.

5.4 Research contributions

The major theoretical contribution of this research was the intersection of socio-cognitive

mindfulness theory, sustainability, and tour guiding practice in a Chinese context. Recent years have witnessed an increased application of the mindfulness concept in tourism-related contexts, with many researchers studying its impact on responsible tourism and sustainability (Barber & Deale, 2013; Caruana et al., 2014; Moscardo, 2017; Stankov et al., 2020; Taylor & Norman, 2018). Regardless of whether trait mindfulness or cognitive mindfulness is applied in tourism, it is generally acknowledged that mindfulness can enhance the sustainable behavior of tourists (Barber & Deale, 2014; Chan, 2019; Errmann et al., 2021; Chen et al., 2017; Moscardo, 2014). Trait mindfulness often involves meditation as a key intervention, which has been reported to reduce preferences for activities like mountain climbing due to a sudden awareness of environmental consequences after listening to an hour of meditation music (Chan, 2019) or to foster more attentive and pro-environmental behaviour by disconnecting tourists from digital devices (Stankov et al., 2020). However, if respondents do not receive any knowledge or information related to sustainability outcomes, it remains unclear how meditative mindfulness alone could generate such pro-environmental results. According to cognitive psychology, it is through conscious thought, "I think, therefore I am" (Descartes, 2014), that mindfulness more reasonably enhances sustainable awareness and consumption behaviour by focusing on the present and changing previous misconceptions (Barbaro & Pickett, 2016; Fischer et al., 2017; Sheth et al., 2010).

In tourism, utilizing specific mindfulness techniques, such as interpretation skills and storytelling, as key elements to achieve mindfulness in practice, has not been widely evaluated for their effectiveness in achieving sustainable actions. Dussler (2020) designed a cognitive mindfulness training program for interpreters by integrating interpretation and nature in real environments, successfully disrupting routine patterns among interpreters and promoting deeper personal experiences of nature through participant interviews. Although the four-week mindfulness-based training conducted in natural settings proved costly, it achieved positive effects among interpreters. The present research addressed this limitation by implementing training with online theoretical learning through presentations and displays, alongside offline mindfulness exercises, making it easier to design and achieve similar positive outcomes for tour guides. Moreover, by combining mindfulness with sustainable tourism

practices, this thesis provides a pioneering framework that spotlights the cognitive processes involved in changing the mindset of tourism stakeholders, particularly tour guides. This approach differs from previous literature that focused only on fostering sustainable awareness among tourists in China, and the mindfulness training has been theoretically discussed to regulate the emotional labour of tourism and hospitality frontline employees (Eck et al., 2023; Johnson & Park, 2020). Even previous mindfulness training for interpreters focused solely on the positive results related to the natural aspects of tourism sustainability, while neglecting social and economic areas (Dussler & Deringer, 2020).

This integrative perspective highlights how tour guides with mindfulness-based sustainability training can reduce negative or destructive onsite behaviour, raise environmental awareness, encourage more responsible decisions, and promote economic and cultural understanding among tourists. This fosters a holistic awareness of sustainable travel.

The thesis research also extended conventional understanding of tour guides' roles as mediators, interpreters, and travel servants to include mindful storytellers, educational instructors, and advocates of sustainability, especially in the contemporary Chinese context. Western researchers consistently conclude that tour guides can utilize their multiple roles to convey the identities of places and encourage visitors' appreciation of sites, thereby improving understanding and valuing of communities, cultures, and environments. They also influence and monitor on-site visitor behaviours and foster pro-conservation attitudes and post-visit behaviours (Francis et al., 2019; Rafique, 2020; Weiler & Ham, 2002). However, the mechanisms through which tour guides adopt this perception of promoting sustainability remain unclear, with it often being assumed that tour guides are innately inclined to be sustainability advocates. This research further supports the exploration of various roles by Chinese tour guides as self-aware advocates of a green lifestyle (Ren et al., 2023). From the successful implementation of mindfulness knowledge and approaches in practice, this cognitive psychological theory could be considered one of the cores "inner mechanisms" for managing various guide roles, such as interpreter, educator, and sustainability protector, and for smoothly transitioning from one role to another (Zhu & Xu, 2021a).

Recently, tour guides have been entitled with the new role of "educational instructors" linking guiding to more formal education. This could be challenging as the evidence suggests

that current students in China exhibit lower levels of critical thinking and novelty-seeking compared to their counterparts in other countries (Li et al., 2020; Loyalka et al., 2021). The positive outcomes of this research suggest that incorporating mindfulness-based sustainability training into the existing Chinese guide training system could improve the novelty and flexibility of tour guides, enabling them to better influence tourists and students through their new interpretation techniques.

The research posits that tour guides, when trained in mindfulness skills and sustainability knowledge, can serve comprehensive roles for promoting tourism sustainability through novel and flexible guiding skills to tourists. This effectively bridges the gap between knowledge and action in the context of how and to what extent tour guiding contributes to tourism sustainability.

The practical contributions of the research are also important, offering actionable strategies and policy considerations to Chinese tour guide system and enrich other tourism industry application.

At the outset of this research, the unsustainable behaviours of tourists were identified as a significant problem for Chinese tourism destinations. Compared to other approaches to controlling unsustainable behaviour, the findings of this research highlight the effectiveness of cognitive mindfulness in guiding efforts. These efforts can subtly encourage sustainable behaviours in tourists through the interpretation of tour guides with an unobtrusive approach. This provides compelling evidence for tourism policymakers and industry stakeholders, underscoring the necessity for policy frameworks that support mindfulness-based or other cognitive psychology training programs. Such training programs can transform previously misunderstood attitudes and cognition about protecting nature and promoting the local economy, shifting tourists' perceptions from "The consumer is God" to more rational and sustainable viewpoints through the efforts of tourism staff.

Contribution to the Tour Guide System and Tourism Industry

The study underscores the importance of action research in addressing real social issues.

Many trained guides noted during the comment session that the training enabled them to reassess their traditional guiding methods, including storytelling and interaction with tourists. Consequently, these mindful guides reported that applying the training had subconsciously affected tourists, leading to higher levels of learning and satisfaction during their travels. They received more praise from tourists, especially students.

In this context, the training program could be divided into tailored sessions and integrated into company in-service training programs and pre-examination courses for tour guide candidates. The Anhui Tour Guide Association has already invited the researcher to host another online training program for more guides at the end of this year. Some of the twenty-seven trained tour guides have also been invited to share their experiences using mindfulness training skills to inspire their peers. The training WeChat group remains active, allowing participants to communicate their nuanced understandings and methods, which will be collected as further training cases or research data. Moreover, the Chinese national online tour guide platform is expected to accept parts of these training methods and techniques, with some clips from the previous training sessions to be uploaded later.

Recognizing the interest and importance of this approach, the research will help the provincial official tourism department promote industry-wide adoption of sustainability as a core value, not only for tour guides but also for other relevant tourism staff. Additionally, the researcher plans to advise the national tour guide examination committee to include tourism sustainability knowledge in their assessments of potential examinees. Furthermore, a detailed training manual is attached in the appendix in English, which could be used to enrich other training systems for English-speaking tour guide associations in other countries (see appendix H).

5.5 Future Research

This thesis provides several suggestions for future research on tour guide mindfulness training and its influence on tourists. Firstly, while the initial findings are promising, longitudinal studies are needed to assess the lasting impacts of mindfulness training on tour guides. Future research could compare pre-training and post-training practices for a larger number of tour guides from different areas of China. Key areas to explore include the obstacles guides encounter in their practical guiding and how to overcome them through shared ideas

from others. Such studies would help determine whether the positive effects observed are sustained over time and how they affect tour guide interpretation skills, tourism sustainability awareness, and their ability to interact with tourists.

If the training is implemented again, enhancing the promotion of more physically interactive workshops by organizing them into a series of tailored sessions could be beneficial. This would involve more personal interaction to gather progressive opinions on understanding sustainability concepts and integrating them with Chinese cultural perspectives. Additionally, guides could share their experiences in promoting sustainable destinations and how they have changed their previous perceptions of guiding work based on new knowledge after several rounds of practical guiding work. Their feedback from tourists and themselves will refine the training contents for the future training system.

Furthermore, collaboration with other scholars, institutions, or companies to develop tailored training content that incorporates psychological theories such as mindfulness could help change the occupational stigma associated with both tourism staff and tourists. Long-standing stereotypes of tour guides as liars and scammers remain a significant issue in the Chinese tourism industry. Addressing this through storytelling methods integrated with destination management and promotion could be further explored with the support of the thesis supervisors and other scholars. Telling China's story well to foreign countries remains a challenge in both diplomatic and cultural communication (Huang & Wang, 2019).

Additionally, while domestic tour guide training is essential, there is a pressing need for research focused on guides who lead Chinese tourists to popular international destinations. Although these tour guides can generally guide tourists domestically or internationally, future research should focus on those who guide outbound tours. The phenomenon of overtourism, especially involving unsustainable behaviours by large groups of Chinese tourists, has negatively affected the attitudes of residents in Asia and Europe (Ji et al., 2022; Zhu & Xu, 2021). These outbound guides could be provided with more specific training based on this research, and the results of their sustainable influences need to be further explored. The researcher could leverage guiding experiences in Cairns, one of Australia's largest tourism destinations for Chinese package groups, to conduct further research on local Chinese tour guides and their sustainability awareness.

Moreover, Chinese tour guides have recently assumed key positions as educational instructors in study tours, as mandated by Chinese policies. Since 2016, the Ministry of Education and the Ministry of Culture and Tourism of China have implemented several national policies requiring that study tours, or educational travel, align with compulsory education plans for all primary and secondary students (Li & Liang, 2020; Sun & Xu, 2021). This education model, reminiscent of the Grand Tour in 18th-century Europe, is treated as a form of compulsory outdoor education that could enhance students' humanity, scientific literacy, learning interest, and critical and innovative capabilities.

According to current regulations, educational instructors, who are mainly tour guides, shift roles without formal requirements and are responsible for formulating the educational plans of travel activities and providing education in cooperation with teachers and other staff. However, the key problem is that most of them lack the professional training needed to provide practical education to students during educational tours. Therefore, educational instructors should possess comprehensive professional skills in both tourism and education (Song & Liu, 2018). Systematic training for these new types of stakeholders in China has not been established, which is crucial as their participants are primary and secondary students. These special visitors should not be taught the same material from textbooks during sightseeing but should be provided with new perspectives to understand sustainability in real society and nature. The basic mindfulness training program for tour guides could be implemented in these new roles to enhance their abilities in educational tours.

5.6 Conclusions

This research provided valuable insights into the integration of cognitive mindfulness and sustainability in the tourism industry. By fostering a deeper understanding and appreciation of sustainable practices among tour guides, the study suggests a path forward for transforming the tourism industry from within. Through policy implications and practical contributions, this research aimed to promote a more sustainable and responsible approach to tourism, benefiting both the environment and local communities.

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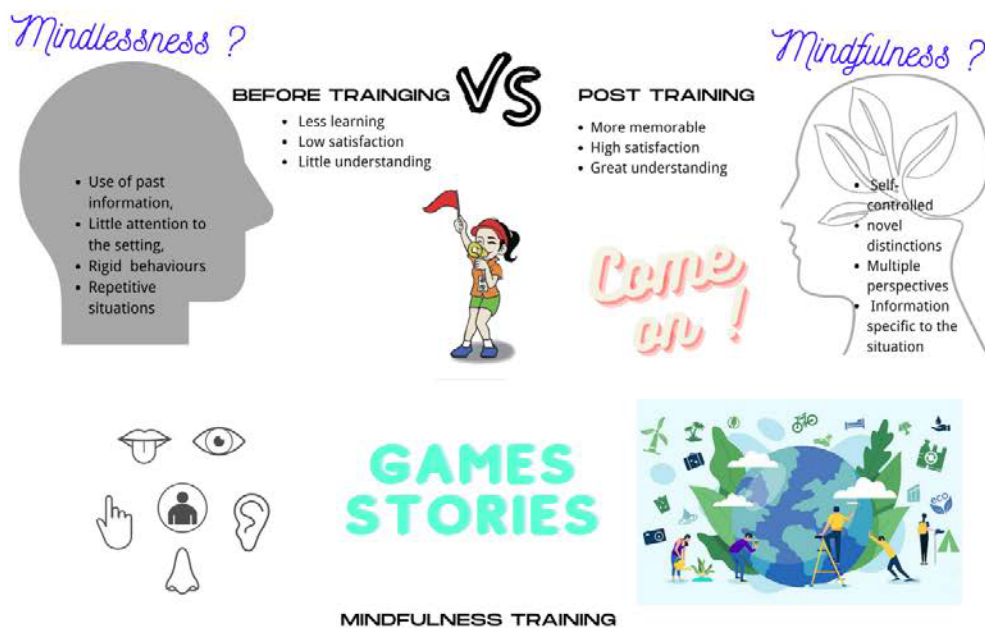
Appendix A: Recruitment Poster and Information Sheet



Mindfulness and Tourism sustainability Training Program For Tour Guide

Aim of training program:

The training workshop comprises the sessions of introducing of the "mindfulness" theory through multi-sensory interactive exercises, and comparing sustainable tourism development with Chinese civilized tourism. This workshop will aim to stimulate the novel thinking, open mind and flexible state of the training guides, and improve their effective skills in leading a group as well as increasing their awareness of the concepts of eco-tourism, civilized tourism and sustainable tourism.



- Training Period: Nov.-Dec. 2022, 4-5 sessions
- Each Session: 1.5 hours
- Participants: Tour guide with certificate
- Number of participants: 30
- Workshop Place: online
- Training Fee: Free

- Requirements: Attend all the training sessions, submit the necessary survey&feedback
- Incentives: Training certificate issued by CBLG, James Cook University Shopping Voucher, \$43
- Scan to join us



Trainer:
Tong Wu
Ph.D Candidate of James Cook
University
Chinese Senior Tour Guide

Discusser :
Yong Wang, Ph.D
Associate Professor of Anhui Normal
University
Professional Tour Guide Trainer

Discusser :
Youcheng Fan,
Secretary of Anhui Tour Guide
Association
Chinese Senior Tour Guide

Contact: College of Business, Law & Governance, James Cook University, Townsville, Australia
E-mail: tong.wu3@my.jcu.edu.au,

Appendix B: Homework of Mindful Sensory Daily Exercises

< 备忘录

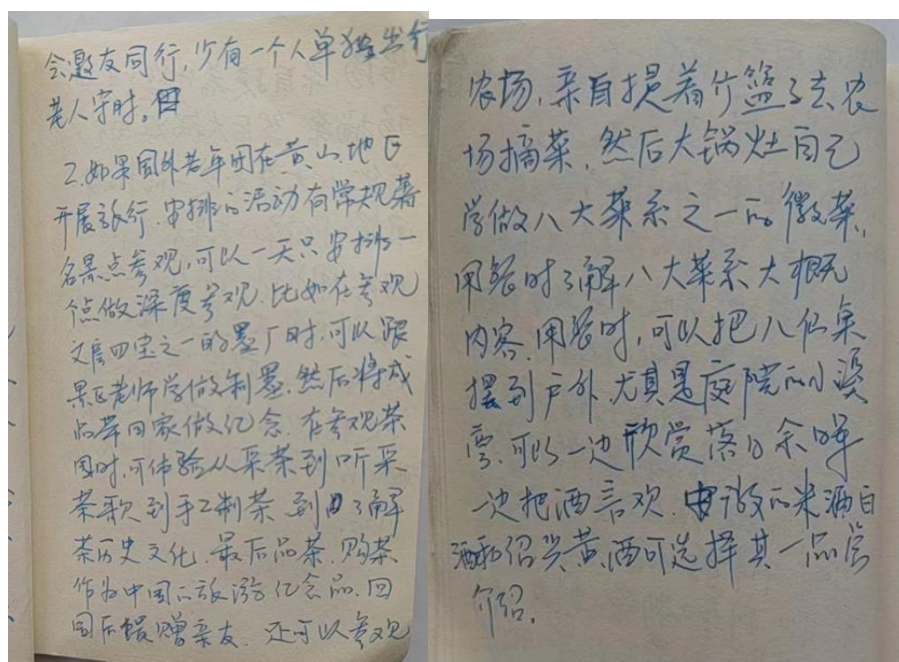


站在阳台打开窗，阳光很耀眼，窗外的三角梅还有两枝正在开放，呈现出正红和玫红两种不同颜色，不知道是跟温度有关还是它就是两种颜色，以前只见它开过玫红色的花，也许再过几天，正红色也会变成玫红色。微风钻进鼻腔有点凉意，像是吸了鼻通一样，又像是刚吃过一颗薄荷糖。在窗边站了一会，阳光洒在身上，暖洋洋的，尤其没有刘海遮挡的额头最能感觉到光的温度，比昨晚室内空调的温度还要舒服。空气中突然飘过邻居家萝卜烧肉的味道，然后听到妈妈在厨房说，吃饭咯。

Translation of the dairy of tour guide:

When you walk under the sun and feel its warmth, when the second breeze no longer feels rough against your face, and the sunlight no longer blinds you, it's not because the wind and the sun have changed, but because your state of mind has changed. You've become gentler and more capable of appreciating the beauty in life. Perhaps one day, you will meet someone who will make you a better person. Because of love, because it's worth it. Remember, the best kind of love is when you see a better version of yourself through someone else. In love, one's growth is more important than anything else. Those who can make you better are very precious, do not miss out on them. Remember, the best relationship is where two people educate and elevate each other on the one hand, and appreciate each other on the other. In such a relationship, you will find yourself becoming a better person without realizing it. Because of love, because it's worth it, because you are together, everything becomes more beautiful. Remember, when you become a better person, the world around you becomes better too.

Appendix C: Example of Alternative Travel Itinerary for Seniors Homework



如果国外的老年团在黄山旅游活动, 可以开展著名景点参观, 可以安排一天中只安排一个点做深度参观。比如参观文房四宝之一的制墨工程, 可以跟景区老师学做制造中国古代的墨, 然后将制成的带回家做纪念。在参观茶园时, 可以体验从采茶到听茶歌, 到手工制茶, 到了解茶的历史文化, 最后品茶, 最后购茶作为中国的旅游纪念品, 回国后馈赠亲友。还可以参观农场, 亲自提着竹篮去农场采摘, 然后用大锅灶自己学做八大菜系的徽菜。用餐时解释八大菜系的概况, 用餐时, 可以把传统的八仙桌搬到户外, 尤其是庭院的小溪旁, 可以一边欣赏落日的余晖, 一边把酒言欢, 安徽的米酒和绍兴的黄酒都可以选择其中之一品尝。

Translation of homework:

If elderly groups from abroad are traveling in Huangshan, they can engage in famous site visits, and it's possible to schedule a deep visit to only one site per day. For example, they could visit one of the "Four Treasures of the Study," the ink-making project, and learn to make ancient Chinese ink with a local expert, then take the finished product home as a souvenir. During a visit to a tea garden, they can experience everything from picking tea leaves to listening to tea songs, manually making tea, learning about the history and culture of tea, and finally tasting and purchasing tea as a souvenir from China to gift to relatives and friends back home. They can also visit a farm, personally carrying a bamboo basket to pick produce, and then use a large pot stove to learn how to cook Huizhou cuisine, one of China's eight major cuisines. During meals, the overview of the eight major cuisines can be explained, and traditional octagonal tables can be moved outdoors, especially beside a small stream in the courtyard, where they can enjoy the remaining sunlight of the sunset while drinking and chatting, with the option to taste either rice wine from Anhui or Shaoxing yellow wine.

Appendix D: Example of Creative Storytelling Homework



Note: Story dice photo

Answer from one tour guide :

码农王先生在办公室敲了一天代码，终于下班到家了，饥肠辘辘。填饱肚子是当务之急，王先生打开冰箱，取出餐碟，拿出冰箱里一块剩下的披萨先充饥。一看天色暗了，王先生转身开了个灯，却见一条大花蛇嘴里叼着披萨快速向窗边游走。啊……我眼睛是花了吗？王先生目瞪口呆，使劲地推了推鼻梁上的眼镜。这年头，病毒吃人，蛇也吃素了？王先生感慨。

Translation:

Mr. Wang, the coder, had been typing code in the office all day, and finally got home from work, ravenously hungry. His top priority was to fill his stomach. Mr. Wang opened the fridge, took out a plate, and grabbed a piece of leftover pizza to satisfy his hunger. As the sky darkened, Mr. Wang turned to switch on a light, only to see a big python with a piece of pizza in its mouth swiftly moving towards the window. Ah... are my eyes deceiving me? Mr. Wang stood there, eyes wide and mouth agape, pushing his glasses up on the bridge of his nose. In this day and age, viruses eat humans, and now snakes are going vegetarian too? Mr. Wang mused

Appendix E : Tour Guide Surveys and Questionnaires

1. What is your name?

2. What is your gender?
A. Male B. Female

3. Which type of tour guide do you frequently work as? (you choose more than one option)
A. National Tour Guide B. Local Tour Guide C. Museum/Scenic spot interpreter D. Overseas Tour Leader E. Others

4. Are you a full time or part time tour guide?
A. Full time B. Part time

5. What is the level of your tour guide certificate?
A. Junior B. Intermediate C. Senior

6. What is your education degree?
A. High School B. Vocational Education C. Bachelor D. Master

7. How long have you experienced as a tour guide?
A. less than one year B. one to three years
C. four to six years D. 1 ten to fifteen years E. above 15 years

Pre-Training Mindfulness Questionnaire

No	Statement	Frequency
1	I could be experiencing some emotion and not be conscious of it until some time later.	1 2 3 4 5 6 almost always ← → almost never
2	I break or spill things because of carelessness, not paying attention, or thinking of something else.	1 2 3 4 5 6 almost always ← → almost never
3	I find it difficult to stay focused on what's happening in the present.	1 2 3 4 5 6 almost always ← → almost never
4	I tend to walk quickly to get where I'm going without paying attention to what I experience along the way.	1 2 3 4 5 6 almost always ← → almost never
5	I tend not to notice feelings of physical tension or discomfort until they really grab my attention.	1 2 3 4 5 6 almost always ← → almost never
6	I forget a person's name almost as soon as I've been told it for the first time.	1 2 3 4 5 6 almost always ← → almost never
7	It seems I am "running on automatic" without much awareness of what I'm doing.	1 2 3 4 5 6 almost always ← → almost never
8	I rush through activities without being really attentive to them.	1 2 3 4 5 6 almost always ← → almost never
9	I get so focused on the goal I want to achieve that I lose touch with what I am doing right now to get there.	1 2 3 4 5 6 almost always ← → almost never
10	I do jobs or tasks automatically, without being aware of what I'm doing.	1 2 3 4 5 6 almost always ← → almost never
11	I find myself listening to someone with one ear, doing something else at the same time.	1 2 3 4 5 6 almost always ← → almost never
12	I drive places on "automatic pilot" and then wonder why I went there.	1 2 3 4 5 6 almost always ← → almost never
13	I find myself preoccupied with the future or the past.	1 2 3 4 5 6 almost always ← → almost never
14	I find myself doing things without paying attention.	1 2 3 4 5 6 almost always ← → almost never
15	I snack without being aware that I'm eating.	1 2 3 4 5 6 almost always ← → almost never

Source from (Brown, Ryan 2003)

Note: item 6 was moved based on analysis of Cronbach Alphas

Pre-training tour guide interviewed questions:

What are the 3 things I do best as a tour guide?

How do you understand the meaning of this job as a tour guide?

How do you use your skills to enhance the better experience for tourists and make them memorable?

How much do you know about the ecotourism or sustainable tourism, civilized behaviour of tourists?

Post Training Mindfulness Questionnaire

No	Statement	Strongly Disagree to Strongly Agree
1	I like to investigate things.	1 2 3 4 5 6 7
2	I generate few novel ideas.	1 2 3 4 5 6 7
3	I am always open to new ways of doing things.	1 2 3 4 5 6 7
4	I "get involved in "in almost everything I do.	1 2 3 4 5 6 7
5	I do not actively seek to learn new things.	1 2 3 4 5 6 7
6	I make many novel contributions.	1 2 3 4 5 6 7
7	I stay with the old tried and true ways of doing things.	1 2 3 4 5 6 7
8	I seldom notice what other people are up to.	1 2 3 4 5 6 7
9	I avoid thought provoking conversations.	1 2 3 4 5 6 7
10	I am very creative.	1 2 3 4 5 6 7
11	I can behave in many different ways for a given situation.	1 2 3 4 5 6 7
12	I attend to the "big picture".	1 2 3 4 5 6 7
13	I am very curious.	1 2 3 4 5 6 7
14	I try to think of new ways of doing things.	1 2 3 4 5 6 7
15	I am rarely aware of changes.	1 2 3 4 5 6 7
16	I have an open-minded about everything, even things that challenge my core beliefs.	1 2 3 4 5 6 7
17	I like to be challenged intellectually.	1 2 3 4 5 6 7
18	I find it easy to create new and effective ideas.	1 2 3 4 5 6 7
19	I am rarely alert to new developments.	1 2 3 4 5 6 7
20	I like to figure out how things work.	1 2 3 4 5 6 7
21	I am not an original thinker.	1 2 3 4 5 6 7

Source from Langer 2000

Note: 4,5,7,9,11,16 & 18 were moved based on analysis of Cronbach Alphas

Post-training tour guide interviewed questions:

How do you think of this training program, give some comments on the pros and cons of it?

What are the new skills you have gained from this training?

How do you apply these training skills in your guiding?

How would you think the functions of novel thinking, flexibility, open-minded in your life?

How do you apply different perspectives in future guiding?

How do you understand the concepts of tourism sustainability and civilized behaviour?

How would you promote tourists' sustainable behaviour in the future?

Appendix F: Information sheet to recruit tour guides in fieldwork

INFORMATION SHEET

PROJECT TITLE: “An Exploration of Mindfulness Training for Tour Guides and the Sustainability of Tourism”

Warm Greeting from James Cook University

You are cordially invited to participate in a tour guide research project aimed at assessing the impact of your guiding performance on tourists visiting Huangshan. This study is being conducted by Tong Wu, a fellow Chinese tour guide, as part of his PhD thesis in Tourism at James Cook University, Australia.

Taking part of this study is completely voluntary and you can stop participating at any time. You will receive an overview of the fieldwork arrangement, and the researcher will collaborate with you to identify the most suitable and convenient tour for the researcher to join during June and July.

The researcher will join your Huangshan tour for approximately two days, acting as an ordinary tourist. Please provide a portion of your tour introduction via an audio recording. At the tour's conclusion, you will be asked a few open-ended questions in an informal manner. Additionally, tourists in your group will receive a verbal explanation of the study and be invited to voluntarily complete a brief, anonymous questionnaire before departing.

No personal or individual information can be identified in any questionnaire of participants from the research and publications. If you have any questions about this study, please don't hesitate to contact the investigator, Tong Wu or his supervisor, Associate Professor Laurie Murphy.

Thank you.

Principal Investigator:

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Supervisor:

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Appendix G: Tourist Survey

Dear Participant,

You are invited to take part in a tour guide research project that will evaluate how your guiding performance influencing tourists in Huangshan. The research is conducted by Tong Wu, and will contribute to his PhD thesis in Tourism at James Cook University, Australia.

Thank you for taking the time to complete this tourist satisfaction questionnaire. Your feedback is valuable in helping us assess the performance of our tour guides and improve the overall experience for future tourists. Please answer the following questions as honestly as possible, based on your recent tour.

Your participation in this questionnaire is entirely voluntary, and your responses will be kept confidential. No personal information, such as your name or contact details, will be collected or linked to your responses.

We appreciate your time and effort in helping us improve the tour guide performance and the overall experience for future tourists. Should you have any questions or concerns about the questionnaire, please feel free to contact tong.wu3@my.jcu.edu.au

Q1 1. What one important thing did you learn about Mt Huangshan from your guided tour?

Q2 2. What were the two most impressive things about your guide?

Q3 3. What two things could the guide have improved to make your tour today better?

Q4 4. I feel that the guide

	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
captured my interest	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
encouraged me to search for answers to questions I may have	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aroused my curiosity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Made me interested in learning more about things in Huangshan.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Encouraged me to feel involved in what is going on around me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Really made me think about Mt. Huangshan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Told me things I want to talk about to others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Made me want to know more about the place	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Engaged multiple senses during the tour	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helped to appreciate the uniqueness of Mt. Huangshan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q5 Overall, how satisfied were you

	Extremely dissatisfied	Somewhat dissatisfied	Neither satisfied nor dissatisfied	Somewhat satisfied	Extremely satisfied
with your experience at Mt. Huangshan?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
with your tour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
with your tour guide?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q6 How much do you agree with the following statements about your tour guide

	None at all	A little	A moderate amount	A lot	A great deal
This guided tour was different to others I have taken.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This tour guide was very flexible in responding to the groups' interests.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The tour guide was very engaged with the tour members.

The tour guide told interesting stories.

The tour guide helped me make connection between Mt. Huangshan and my life and interests.

Q7 What is the most important feature of Mt. Huangshan?

Q8 What was the most interesting thing you learnt about Mt.Huangshan from the tour guide?

Q9 Did the tour guide tell you about how to behave to make sure that you did no damage to this important site?

- No, not that I remember
- Yes, Yes, which of the following things did the tour guide tell you?

Q10 The guide told us the in-site specific behaviours that we should not do.

- Disturb or feed wild monkeys.
- Littering.
- Scribbling or drawing on rocks or trees.
- Collecting plants as specimens or souvenirs without permission.
- Wasting water and food resources on the mountain.

-
- Smoking and littering in non-designated areas on the mountain.
 - Climbing dangerous terrain and facilities in the scenic area at will.
 - Dumping instant noodle soup water indiscriminately, polluting pine trees.

Q11 Did the tour guide tell you about how to behave to make a positive contribution to the site and the area in general?

- No, not that I remember
- Yes, which of the following things did the tour guide tell you?

Display This Choice:

*If Did the tour guide tell you about how to behave to make a positive contribution to the site and...
= No, not that I remember*

Q12 The guide told us the positive things that we could do at the site.

- Understand and respect the local Huizhou customs and traditions, and actively learn about the local culture.
- Accept flexible travel arrangements, visit attractions during off-peak times and in less-crowded areas to avoid large crowds.
- While participating in activities, especially hiking the mountains, stay close to the group and give priority to special groups such as the elderly, weak, sick, disabled, and pregnant individuals.
- Avoid or reduce the use of disposable plastic products and hotel disposable toiletries.
- Purchase local specialty products such as tea to support the local economy.
- Respect the value of the tourism service and product, and pay a reasonable price for the purchase of them.

Q13 Did the guide talk about sustainability in general during the tour?

-
- No. not that I remember
 - Yes: What is the most important that you learnt about sustainability in general from this tour.

Q14 The positive things that we could do after visiting Huangshan.

- Recommend Huangshan as a tourist destination to friends and acquaintances
- Use personal social media, to share Huangshan's environmental protection story and personal experiences with responsible tourism behavior
- Bring back good environmental habits from the trip, such as conserving water, electricity, and reducing waste.
- Use reusable water bottles, utensils, and other items to reduce the use of disposable products.
- Choose eco-friendly transportation methods, such as public transportation, bicycles, or walking, to reduce carbon emissions.
- In future travels, choose local tourism services to support local economic development.
- Consider the carrying capacity of the tourist destination in travel planning to avoid overcrowding and over-tourism.
- Pay closer attention to and support various ecological and sustainable development initiatives in the local community.
- Prior to traveling, research the cultural traditions of the destination and make an effort to protect the local cultural heritage.

Q15 Have you been to Mt. Huangshan before?

- No.
- Yes.

Q16 How many times have been here ?

- Never
- This is my first trip.
- I've been once.
- I've been more than once.

Q17 And when was your last visit to Huangshan?

- less than one year
- 1-2 years ago
- 2-5 years ago
- 5-10 years ago
- 10 years ago

Q18 Where do you normally live?

Q19 How long are you going to stay in this area?

- 1 day
- 2-3 days
- 4-7 days
- 8-14 days
- 15-30 days
- more than one month

Q20 How often do you usually travel within your home province leaving your city each year?

- once a year
- 2-3 times a year
- 4-6 times a year
- 7-11 times a year
- 12 times or more a year

Q21 How often do you travel outside your home province each year?

- once a year
- 2-3 times a year
- 4-6 times a year
- 7-11 times a year
- 12 times or more a year

Q22 Have you travelled overseas in the last 5 years ?

- No
- Yes, once.
- Yes, more than once.

Q23 In the last year how often have you taken a guided tour at a tourist site?

- Never
- Rare

Occasionally

Regularly

Very Frequently

Q24 What is your gender?

Male

Female

Q25 What is your age?

less than 21

22-35 years old

36-45 years old

46-55 years old

56-65 years

more than 65 years

Q26 Who are they travelling with

alone

with a partner

with family

with a group of friends

with an organized tour

Q27 What is your level of education?

- primary school
- middle school
- high school
- vocational school
- undergraduate
- postgraduate

Appendix H: Chinese Tour Guides Mindfulness Training Program Manual

Sessions	Contents and instructions	Length (Days/ mins)	Host and form
Preparation Session	Distribute poster in Anhui Tour Guides Online Community to recruit tour guides; Design the survey via Qualtrics including cover letter, the consent form, personal demographic section, and pre-training mindfulness Scale, open-ended questions. First round Recruitment based on the personal demographic	10 days	Trainer and assistant; Wechat Group, Qualtrics
	Recruit more guides from other travel agencies, based on the different demographic information with 89 in total	5 days	Trainer and assistant
	Set up two Wechat groups for all the 55 tour guides, 35 full time tour guide, and 30 part-time guide (5 guides joined both group)	4 days	Wechat Group
I Workshop for Full Time Tour Guide Date: Nov.24,2023 Thursday evening Time: 19:00-21:00	Introduced trainer researcher and discussion group members, and welcome and encourage guides to actively participate	5 mins	Secretary of Anhui Tour Guides Association, Mr. Fan via Tencent Online Meeting Platform(TMP)
	1. Introduce the socio-cognitive psychology, and two thinking systems 2. Distinguish mindfulness and mindless and their phenomena in daily life	25 mins	Trainer
	3. Task 1: Mindfulness Exercises Step 1: Mindful looking: Gestalt pictures; neuron scientific illusion pictures Step 2: Mindful hearing: Special sound appreciation Step 3: Mindful smell, mindful touch, mindful tasting: Mindful Chocolate Taste Step 4: Mindful Thinking: Mindful Triangle Games, Mindful Words game	40 mins	Trainer and Tour Guides
	4. Task 2: Discussion Step 1: Divide into 3 groups via TMP Step 2: List the questions and discuss Step 3: Share the conclusion by the representative of each group and comments by the other groups	30 mins	Trainer and Tour Guides
	5. Homework: 2 Weeks of Mindfulness off-line self-training and share in Wechat group : Take mindful photos in daily life and write down experiences through mindful smell; mindful walking; mindful tasting	10min	Tour Guides
Discussion session	Discuss with 5 discussion group members, collect their feedback on first workshop	50 mins	Trainer and Discussion group